

United States
Circuit Court of Appeals
For the Ninth Circuit.

MAJESTIC ELECTRIC DEVELOPMENT COMPANY, a Corporation,

Appellant,

vs.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, a Corporation,

Appellee.

Transcript of Record.

Upon Appeal from the Southern Division of the
United States District Court for the
Northern District of California,
Second Division.

FILED

JAN 29 1921

F. D. MONCKTON
CLERK

United States
Circuit Court of Appeals
For the Ninth Circuit.

MAJESTIC ELECTRIC DEVELOPMENT COMPANY, a Corporation,

Appellant,

vs.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, a Corporation,

Appellee.

Transcript of Record.

Upon Appeal from the Southern Division of the
United States District Court for the
Northern District of California,
Second Division.

INDEX TO THE PRINTED TRANSCRIPT OF RECORD.

[Clerk's Note: When deemed likely to be of an important nature, errors or doubtful matters appearing in the original certified record are printed literally in italic; and, likewise, cancelled matter appearing in the original certified record is printed and cancelled herein accordingly. When possible, an omission from the text is indicated by printing in italic the two words between which the omission seems to occur.]

	Page
Answer	7
Assignment of Errors on Appeal, Plaintiff's, from Order and Decree Entered in the Minutes October 4, 1920, and Final Decree Made and Entered November 1, 1920	113
Bill of Complaint for Infringement of Design Patent No. 51,253	1
Bond on Appeal	122
Certificate of Clerk U. S. District Court to Transcript of Record	126
Citation	127
Decree	34
Judgment	34
Opinion Dismissing Bill	19
Order Allowing Appeal of Plaintiff from Order and Decree of October 4, 1920, and from the Final Decree of November 1, 1920.....	111
Order Allowing Withdrawal of Original Exhibits	121
Order Designating Judge Dietrich to Sit in This Court	16
Order Dismissing Bill, etc.....	17

Index.	Page
Order Extending Time to and Including January 20, 1921, to File Record on Appeal and Docket the Cause.....	129
Petition, Plaintiff's, for an Order Allowing Appeal from Order and Decree of October 4, 1920, and from the Final Decree of November 1, 1920.....	109
Praeclipe for Transcript of Record.....	124
Statement of Evidence Under Equity Rule 75 for the Purposes of Appeal.....	36
Stipulation Re Statement of Evidence on Appeal	35
TESTIMONY ON BEHALF OF PLAINTIFF:	
BROWN, EDMUND A. (In Rebuttal) ...	71
Cross-examination	76
BROWN, EDMUND N. (Case No. 493) ..	107
Cross-examination	108
HENRY, GEORGE J. (In Rebuttal)....	78
Cross-examination	84
HENRY, GEORGE J. (Case No. 493) ..	87
Cross-examination	96
TESTIMONY ON BEHALF OF DEFENDANT:	
BEAM, VICTOR S.....	47
Cross-examination	63

In the Southern Division of the United States
District Court for the Northern District of
California, Second Division.

No. 544.

MAJESTIC ELECTRIC DEVELOPMENT COM-
PANY,

Plaintiff,

vs.

WESTINGHOUSE ELECTRIC & MANUFAC-
TURING COMPANY,

Defendant.

**Bill of Complaint for Infringement of Design
Patent, No. 51,253.**

Now comes plaintiff in the above-entitled suit and files this its bill of complaint against the defendant, and for cause of action alleges:

1. That the full name of the plaintiff is Majestic Electric Development Company, and at all times hereinafter mentioned plaintiff was and still is a corporation created under the laws of the State of California and having its principal place of business in the City and County of San Francisco, State of California.

2. That the full name of the defendant is Westinghouse Electric & Manufacturing Company, and at all the times hereinafter mentioned said defendant was and still is a corporation created under the laws of the State of Pennsylvania, and having a regular and established place of business in the Northern District of California, Southern Division, to wit, at the City and County of San Francisco, State of California, with an agent engaged in conducting such

2 *Majestic Electric Development Company vs.*

business in said Northern District of California,
Southern Division.

3. That heretofore, to wit, prior to May 28th, 1917, one Edmund N. Brown, a citizen of the United States, residing at the City and County of San Francisco, in the State of California, invented a new, original and ornamental design for an article of [1*] manufacture, to wit, an electric heater casing, not known to or used by others in this country before his said invention thereof, nor patented or described in any printed publication in this or any foreign country before his invention thereof, or more than two years prior to his application for a patent hereinafter alleged, nor in public use or on sale in this country for more than two years prior to his said application, nor patented or caused to be patented by the said Brown or his legal representatives or assigns in any foreign country upon an application filed more than four months prior to the filing of his application in this country hereinafter alleged; that being such inventor as aforesaid heretofore, to wit, on July 10th, 1917, said Edmund N. Brown filed an application in the Patent Office of the United States praying for the issuance to him of letters patent of the United States for said design of an electric heater casing.

4. That after the filing of said application and prior to the issuance of any patent thereon, the said Edmund N. Brown for value received by an assignment in writing, sold and assigned to the plaintiff herein the aforesaid design, together with any and

*Page-number appearing at foot of page of original certified Transcript
of Record.

all letters patent that might be issued therefor, and in and by said assignment requested the Commissioner of Patents to issue the said patent to the said Majestic Electric Development Company, a corporation, its successors and assigns, which said assignment was filed in the Patent Office of the United States prior to the issuance of letters patent on said application.

5. That thereafter, to wit, on September 11, 1917, letters patent of the United States for said design, dated on said day, and numbered 51,253, issued in the name of the United States of America under the seal of the Patent Office and signed by the Commissioner of Patents, and recorded together with the specification in the Patent Office in books kept for that purpose, were granted, issued and delivered by the Government of the United States to the plaintiff herein, Majestic Electric Development [2] Company, a corporation, as the assignee of said Edmund N. Brown, whereby there was granted unto the said plaintiff, its successors and assigns, for the term of seven years from the 11th day of September, 1917, the sole and exclusive right to make, use and vend the said invention covered by said letters patent throughout the United States of America and the territories thereof.

6. That ever since the issuance of said letters patent plaintiff has been and still is the sole owner and holder thereof, and of all rights, liberties and privileges thereby conferred, and has made and sold electric heater casings to which the said design was applied, and upon each and every one of the

said articles so sold the date and number of the aforesaid patent were marked.

7. That after the issuance of said letters patent and during the term thereof, to wit, between the 11th day of September, 1918, and the commencement of this suit, in the Northern District of California, and at other places outside of the Northern District of California, the defendant herein without the license or consent of the plaintiff did apply the design secured by said letters patent and colorable imitations thereof to articles of manufacture, to wit, electric heater casings, for the purpose of sale, and did sell said electric heater casings to which said design and colorable imitations thereof had been applied as aforesaid, and without the license or consent of the plaintiff did make and sell electric heater casings containing and embracing the invention patented in and by said letters patent No. 51,253.

8. That by reason of the infringement aforesaid plaintiff has suffered damages, and defendant has realized gains, profits and advantages, but the exact amount of said damages and of said gains, profits and advantages is unknown to the plaintiff. [3]

9. That the plaintiff has requested the defendant to cease and desist from further infringement upon said letters patent and to account to the plaintiff for the aforesaid damages and profits, but the defendant has failed and refused to comply with such request or any part thereof.

10. That the defendant is now continuing the infringement of said letters patent as aforesaid daily

at the City and County of San Francisco, State of California, and elsewhere, and threatens to continue the same, and unless restrained therefrom by this Honorable Court will continue the same, whereby plaintiff will suffer great and irreparable injury and damage, for which it has no plain, speedy or adequate remedy at law.

WHEREFORE, plaintiff prays as follows:

First: That a final decree be entered in favor of plaintiff, Majestic Electric Development Company, and against the defendant, Westinghouse Electric & Manufacturing Company, perpetually enjoining and restraining the said defendants, its officers, servants, agents, workmen and employees, and each of them, from making, using or selling the device or devices described, claimed and patented in and by the said letters patent either directly or indirectly, or from contributing to any such infringement.

Second: That upon the filing of this bill of complaint a preliminary injunction be granted to the plaintiff enjoining and restraining the defendant, Westinghouse Electric & Manufacturing Company, its officers, servants, agents, attorneys, workmen and employees, and each of them, until the further order of this Court, from making, using or selling the device or devices described, claimed and patented in and by the said letters patent, and from making, using or selling any device or devices in colorable imitation thereof, and from infringing upon said letters patent [4] either directly or indirectly or from contributing to any such infringement.

Third: That plaintiff have and recover from the

defendant, Westinghouse Electric & Manufacturing Company, the gains, profits and advantages realized by the defendant and the damages suffered by the plaintiff from and by reason of the infringement aforesaid, together with costs of suits, and such other and further relief as to the Court may seem proper and in accordance with equity and good conscience.

MAJESTIC ELECTRIC DEVELOPMENT COMPANY.

By EDMUND N. BROWN,
President.

JOHN H. MILLER,
Attorney and Counsel for Plaintiff,
723-6 Crocker Building,
San Francisco, California.

United States of America,
Northern District of California,
City and County of San Francisco,—ss.

Edmund N. Brown, being duly sworn, deposes and says: That he is president of Majestic Electric Development Company, plaintiff, in the within entitled case; that he has read the foregoing bill of complaint and knows the contents thereof; that the same is true of his own knowledge, except as to matters therein stated on [5] information and belief, and as to those matters he believes it to be true.

EDMUND N. BROWN.

Subscribed and sworn to before me this 1st day of
June, A. D. 1920.

[Seal] EUGENE P. JONES,
Notary Public in and for the City and County of
San Francisco, State of California.

[Endorsed:] Filed Jun. 3, 1920. W. B. Maling,
Clerk. By J. A. Schaertzer, Deputy Clerk. [6]

(Title of Court and Cause.)

Answer.

The answer of Westinghouse Electric & Manufacturing Company, the above-named defendant, to the bill of complaint of the above-named plaintiff.

This defendant, now and at all times hereafter, saving and reserving to itself all and all manner of benefit and advantage of exception which may be had, or taken, to the many errors, uncertainties, imperfections and insufficiencies in said bill of complaint contained, for answer thereunto, or unto so much and such parts thereof as this defendant is advised that it is material or necessary to make answer unto, answering, says:

1. As to whether the full name of the plaintiff is Majestic Electric Development Company, and whether the plaintiff was and still is a corporation created under the laws of the State of California and has its principal place of business in the City and County of San Francisco of the State of California, defendant does not know and leaves plaintiff to make proof thereof.

2. Answering further, this defendant admits that the full name of defendant is Westinghouse Electric & Manufacturing Company and that it was, and still is, a corporation of the State of Pennsylvania and has a regular and established place of business in the City and County of San Francisco of the State of California, with an agent conducting such business.

3. Answering further, this defendant admits that, on July 10, 1917, on Edmund N. Brown filed an application in the United States Patent Office praying for the issuance to him of Letters Patent of the United States for a design for an electric heater casing, but denies that the said design was new, original or [7] ornamental; that it was not known or used by others in this country before his alleged invention thereof and not patented or described in any printed publication in this or any foreign country before his alleged invention thereof or more than two years prior to his application for Letters Patent, and not in public use or on sale in this country for more than two years prior to his said application and that it had not been abandoned; and this defendant further denies that the design, set forth and claimed in said application for letters patent, was invented by the said Edmund N. Brown prior to May 28th, 1917, or at any other time.

4. Answering further, as to whether the said Edmund N. Brown did, subsequent to the filing of said application and prior to the issuance of Letters Patent thereon, for value received, sell and assign to the plaintiff herein by an assignment, in writing, the aforesaid design, together with any and all Letters Patent that might be issued therefor, and requested the Commissioner of Patents to issue such patent to the Majestic Electric Development Company, its successors or assigns, and whether any such assignment was filed in the Patent Office of the United States prior to the issuance of Letters Patent on the said application, this defendant is not informed and leaves the plaintiff to make proof thereof.

5. Answering further, this defendant admits that Letters Patent No. 51,253, were issued to the Majestic Electric Development Company on September 11, 1917, for the term of seven years from that date, but whether such Letters Patent were delivered to the plaintiff herein defendant does not know.

6. Answering further, as to whether the plaintiff has been and still is the sole owner or holder of the said Letters Patent and of all rights, liberties and privileges thereby conferred and whether the plaintiff has made and sold electric heater casings embodying the said design defendant does not know and [8] leaves the plaintiff to make proof thereof, but defendant denies that each and every or any electric heater casing made and sold by the plaintiff has been marked with the date and number of the aforesaid patent.

7. Answering further, this defendant denies that, between the 11th day of September, 1917, and the commencement of this suit, it has, in the Northern District of California, or in any other place or places outside of the Northern District of California applied the design secured by said letters patent No. 51,253, or any colorable imitations thereof to electric heater casings for the purposes of sale or that it has sold or exposed for sale any such article of manufacture embodying such design or any colorable imitation thereof.

8. Answering further, this defendant denies that it has realized profits, gains or advantages or that the plaintiff has suffered damages by reason of any

10 *Majestic Electric Development Company vs.*

infringement of said Letters Patent No. 51,253 by the said defendant.

9. Answering further, this defendant admits that it has been requested by the plaintiff to desist from infringing said letters patent and to account to plaintiff for alleged damages and profits, but this defendant denies that it has failed and refused to comply with any such request, or threatens or intends to continue to make, use and sell anything described and claimed in said letters patent, or that it has made, used and sold any such heater casings since the receipt of such notice, or at any other time.

10. Answering further, this defendant denies that it is now continuing infringement of the said letters patent, directly or otherwise, in the City and County of San Francisco, State of California, and elsewhere, or that it threatens to continue any such infringement or that the plaintiff will suffer great [9] and irreparable injury and damage by reason of any acts of defendant.

11. Answering further, this defendant denies that the alleged design for electric heater casings shown, described and claimed in said letters patent No. 51,253, contains and embodies any material beneficial advance over what had previously been known to those skilled in the art, but avers the fact to be that the patent is invalid and void, for the following reasons:

(a) Because the said Edmund N. Brown was not the original and first inventor or discoverer of the invention alleged to be shown, described and claimed in said letters patent, or of any material or substantial

part thereof, but that the same and all material or substantial parts of the alleged invention had been patented or described in the printed publications and letters patent prior to the date of the alleged invention of the said Edmund N. Brown, as follows:

LETTERS PATENT OF THE UNITED STATES.

	No.	Date.	Patentee.
Design	45,317	Feb. 24, 1914	A. A. Warner.
	684,459	Oct. 15, 1901	E. F. Porter.
	921,476	May 11, 1909	W. A. Soles.
	1,109,551	Sept. 1, 1914	M. H. Shoenberg.
	1,120,003	Dec. 8, 1914	A. A. Warner.
	1,187,968	June 20, 1916	E. N. Cherry.
Design	51,043	July 17, 1917	E. N. Brown.
	1,205,011	Nov. 14, 1916	P. D. Phillips & E. G. K. Anderson.

LETTERS PATENT OF GREAT BRITAIN.

No.	2,764 of 1912.
No.	19,971 of 1913.
No.	102,070 of 1916.

PUBLICATIONS.

Page 79 of the issue of Jan. 25, 1912, *The Electrical Times*, published in London, England.

Page 37 of the issue of Jan. 11, 1912, *The Electrical Times*. [10]

Page 362 of the issue of Mar. 6, 1913, *The Electrical Times*.

Page 364 of the issue of Mar. 6, 1913, *The Electrical Times*.

Page 214 of the issue of Oct. 3, 1913, of the Supplement to "The Electrician," published in London, England.

12 *Majestic Electric Development Company vs.*

Page 353 of the issue of Oct. 9, 1913, *The Electrical Times*.

Page 591 of the issue of Dec. 4, 1913, *The Electrical Times*.

Page 12 of the issue of Oct. 16, 1914, of the Supplement to "The Electrician."

Page 19 of the issue of May, 1915, *Electrical Record*, published in New York, N. Y.

Page 162 of the issue of Aug. 31, 1916, *The Electrical Times*.

Page 14 of the issue of May, 1907, *Electrical Record*, published in New York, N. Y.

Advertising insert—page two of the Supplement to "The Electrician" of the issue of September 20th, 1912.

Page 163 of the issue of Aug. 16, 1912, of the Supplement to "The Electrician."

Pages 1 and 11 of the Oct. 3, 1906, issue of "Prometheus," published by Dr. Otto N. Witt in Berlin, Germany.

Also in many other letters patent and printed publications not now known to this defendant, but which, when discovered hereafter, defendant prays leave of the Court to furnish and concerning which defendant prays leave to incorporate data in this, its answer, by suitable amendment thereof.

(b) Because, in view of the state of the art in respect to electric heater casings prior to, or at the time of, the alleged invention of the said Edmund N. Brown, the supposed improvement shown, described and claimed in said letters patent was not a patentable invention, discovery or improvement but com-

prised mere selections and adaptations from prior known structures requiring no invention but being within the domain of mere judgment and skill in the art and, in view of such prior [11] art, this defendant refers to and hereby makes a specific part of its answer, the several printed publications and letters patent hereinbefore cited.

(c) Because, defendant is informed and believes, the said Edmund N. Brown was not the original and first inventor of the alleged invention, discovery or improvement described and claimed in said letters patent or any material or substantial part thereof; that, prior to any such invention by said Edmund N. Brown, said invention, discovery or improvement was publicly known to, and used by, others, at places in this country, to wit:

Alonzo A. Warner and Landers, Frary & Clark, at New Britain, Connecticut, and elsewhere.

(d) Because, as defendant is informed and believes, the Majestic Electric Development Company, the plaintiff herein, manufactured, publicly exhibited and offered for sale and sold electric heater casings like or substantially like that shown, described and claimed in the said letters patent No. 51,253, in the City and County of San Francisco, in the State of California, and elsewhere, and that such heater casings were so sold and were publicly exhibited and used more than two years prior to the 10th day of July, 1917.

12. Further answering, this defendant avers and says that, in view of the proceedings had and taken in the United States Patent Office during the

14 *Majestic Electric Development Company vs.*

prosecution of the application for the said letters patent No. 51,253, the claim forming part of the said letters patent cannot lawfully be construed as covering and embracing any device manufactured and sold by this defendant, or any substantial or material part thereof, but that said claim, if held to be valid at all, must be so narrowly construed as not to cover or include the devices so manufactured and sold.

13. Further answering, this defendant avers that, for the [12] purpose of deceiving the public, the drawing, specification and claim of the said patent No. 51,253 have been made to contain less than the whole truth, relative to the alleged invention, wherefore the meaning and scope of the said patent are so uncertain and indeterminate as to render the patent invalid and of no effect.

14. Wherefore, the said letters patent are null and void and have no effect to secure the plaintiff any exclusive right in or under the subject matter of the claim of the said letters patent.

15. This defendant denies that it has done any act or thing, or proposes to do any act or thing, which entitles the said plaintiff to an injunction or to an accounting or to any other relief.

All of which defenses said defendant is ready to further maintain and prove as this Honorable Court shall direct, and it prays to be hence dismissed with

its costs in this behalf most wrongfully sustained.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY,

By E. M. HERR,
President.

DAVID L. LEVY,
WALTER SHELTON,

Solicitors for Defendant.

WESLEY G. CARR,
Of Counsel. [13]

State of Pennsylvania,
County of Allegheny,—ss.

E. M. Herr, being duly sworn, deposes and says: I am president of the Westinghouse Electric & Manufacturing Company, the above-named defendant; I have read the foregoing answer to the bill of complaint in the suit of Majestic Electric Development Company, Plaintiff, vs. Westinghouse Electric & Manufacturing Company, Defendant, and know the contents thereof, and the same is true of my own knowledge, except as to the matters therein stated on information and belief, and as to those matters I believe it to be true.

E. M. HERR.

Sworn to and subscribed before me this 15th day of June, 1920.

[Seal]

E. E. LITTLE,
Notary Public.

My commission expires at end of next session of Senate.

Rec'd a copy of the within July 16, 1920.

JOHN H. MILLER,
Attorney for Plaintiff.

[Endorsed]: Filed Jul. 17, 1920. W. B. Maling,
Clerk. By Lyle S. Morris, Deputy Clerk. [14]

**(Order Designating Judge Dietrich to Sit in This
Court.)**

WHEREAS, in my judgment the public interest so requires, I hereby designate and appoint the Honorable FRANK S. DIETRICH, United States District Judge for the District of Idaho, to hold the District Court of the United States for the Northern District of California, during the months of August and September, 1920, and to have and exercise within said district the same powers that are vested in the judges thereof.

WITNESS my hand hereto this 23d day of August, 1920.

W. B. GILBERT,
Senior Circuit Judge of the Ninth Circuit.

[Endorsed]: Filed Aug. 24, 1920. W. B. Maling,
Clerk. [15]

At a stated term, to wit, the July term, A. D. 1920, of the Southern Division of the United States District Court for the Northern District of California, Second Division, held at the court-room in the City and County of San Francisco, on Monday, the 4th day of October, in the year of our Lord one thousand nine hundred and twenty. Present: The Honorable MAURICE T. DOOLING, District Judge.

No. 544—EQUITY.

MAJESTIC ELECTRIC DEVELOPMENT CO.

vs.

WESTINGHOUSE ELECTRIC & MNFG. CO.

(Order Dismissing Bill, etc.)

In accordance with the opinion of Honorable Frank S. Dietrich, United States District Judge for the District of Idaho (before whom this suit was heretofore tried), which said opinion is this day filed, it is ordered that the bill herein be and the same is hereby dismissed, with costs to defendant, and that a decree be signed, filed and entered accordingly. [16]

In the United States District Court, Northern District of California, Second Division.

No. 492.

MAJESTIC ELECTRIC DEVELOPMENT COMPANY,

Plaintiff,

vs.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY,

Defendant.

No. 493.

MAJESTIC ELECTRIC DEVELOPMENT COMPANY,

Plaintiff,

vs.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY,

Defendant.

No. 544.

MAJESTIC ELECTRIC DEVELOPMENT COMPANY,

Plaintiff,

vs.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY,

Defendant.

No. 499.

MAJESTIC ELECTRIC DEVELOPMENT COMPANY,

Plaintiff,

vs.

HOLBROOK, MERRILL & STETSON, a Corporation,

Defendant.

(Opinion Dismissing Bill.)

JOHN H. MILLER, Attorney for Plaintiff.

WESLEY G. CARR, DAVID L. LEVY, NATHAN HEARD, and SAMUEL KNIGHT, Attorneys for Defendants. [17]

DIETRICH, District Judge:

Four suits for infringement (numbers 492, 493, 499 and 544) were tried consecutively, in a large measure upon the same evidence, and have now been submitted upon the same argument. In each of them the Majestic Electric Development Company is the plaintiff; the Westinghouse Electric & Manufacturing Company is the defendant in numbers 492, 493 and 544, and Holbrook, Merrill & Stetson in 499. Numbers 492 and 499 are for infringements of United States design patent No. 51,043, issued July 17, 1917, to the plaintiff company, as the assignee of Edmund N. Brown, patentee, whose application therefor was filed May 28, 1917. Number 493 is for infringement of mechanical or utility patent numbered 1,245,084, issued by the United States on Oc-

tober 30, 1917, to the plaintiff, as the assignee of Edmund N. Brown, patentee, whose application therefor was filed July 10, 1917. And number 544 is for infringement of design patent numbered 51,253, issued by the United States on September 11, 1917, to the plaintiff, as assignee of Edmund N. Brown, patentee, upon an application filed July 10, 1917. Hence three patents are in suit:

Design patent No. 51,043, applied for May 28, 1917,
issued July 17, 1917.

Design patent No. 51,253, applied for July 10, 1917,
issued September 11, 1917.

Utility patent No. 1,245,084, applied for July 10,
1917, issued October 13, 1917.

All of the patents relate to a portable electric heater or its casing, and cover substantially the same device. It will be more convenient first to dispose of the suit involving the utility patent. The claims are as follows:

“1. An electric heater, comprising a concavo-convex reflector, a heating unit supported at substantially the focus of said reflector, an annular member extending outwardly from [18] the margin of said reflector, and a protective cage having guard wires arched between opposite sides of said annular member.

2. An electric heater, comprising a concavo-convex reflector, a heating unit supported at substantially the focus of said reflector, an annular member extending outwardly from the margin of said reflector, and a protective cage of arched guard wires hinged to said annular member so

that it may be swung outwardly from the reflector.

3. An electric heater, comprising a concavo-convex reflector, a heating unit supported at substantially the focus of said reflector, a concavo-convex casing extending over the convex side of said reflector and spaced therefrom except at the margins, said casing having an annular portion extending outwardly from the margin of said reflector, and a protective cage having guard wires arched between opposite sides of said annular portions:

4. An electric heater, comprising a concavo-convex metal reflector, a heating unit in space relation thereto, said reflector being provided with apertures having their margins bent to form flanges, insulating means upon either side of said flanges, and connecting devices extending through said insulating means and connected to the terminals of said heating unit."

In the specifications we are advised that the invention relates to improvements in electric heaters, in which the heat rays generated by a resistance coil or heating unit are reflected from a highly polished surface, and, further, that one of the main purposes of the invention is to provide means by which the highly heated portions of the device are inclosed by protecting members. While the phrase "beam heater" is not used in the application for patent, the device is so referred to and characterized in the trade. The purpose thereof is by reflection to concentrate the radiant energy upon a comparatively

small area, and thus to furnish the desired measure of heat within [19] the range of the "beam," without the necessity of heating to so high a degree the entire space in the room. Admittedly an ideal beam, of substantially parallel rays, cannot be realized, and the various devices used for the purpose only approximate such a result, some more closely than others. It is also well understood that the physical laws relating to the reflection of heat are the same as those pertaining to the reflection of light.

The position of the plaintiff is that the invention disclosed by the patent in suit is generic, and that thereby Brown introduced a broad fundamental idea theretofore unknown in the art, whereas the defendant contends that he only embodied a familiar conception in a slightly different form of mechanism. Correctly, it is thought, counsel for the plaintiff so defines the underlying issue, and unless in that respect its position is sustained it cannot succeed. Considerable testimony, it is true, was offered to show that certain members of the defendant's heater are the functional equivalents of similar parts of the patented device. But if the patent is held to cover, not a generic idea, but only minor improvements in a known mechanism, there is no infringement. It is possible, of course, to characterize the turned-over edge of the defendant's reflector as a flange, and to find that in a slight degree it performs the function for which the annular member or flange illustrated in the Brown patent was designed, but such an effect is merely incidental. Its primary pur-

pose is to give to the reflector strength and a finished appearance. It is to be observed that the reflecting member of the plaintiff's heater also has a turned-over edge, so that if we eliminate the annular flange we still have a reflector very closely corresponding to the reflecting member of the defendant's heater, including the turned-over edge, and hence the novelty or patented feature in the Brown device, namely, the broad [20] flange, to which the claims doubtless relate, is not found in the defendant's heater at all. The correctness of this view may be readily demonstrated by removing the reflector in the plaintiff's heater from its casing and thus separating it from the protective flange.

The defendant's heater has no casing by means of which in the plaintiff's device the back of the reflector is protected, and therefore there can be no contention of infringement in that respect.

There is no novelty in the plaintiff's wire guard or cage, unless it be in the hinging device, and the defendant's guard is not hinged.

If valid at all, the fourth claim must be narrowly construed, for the necessity of insulation and generally the means by which it is accomplished are matters of familiar knowledge, and such novelty, if any, as the claim discloses must be found in the minute details of construction; but in such details the defendant's insulating and connecting devices are substantially different.

If, then, the plaintiff can succeed only upon the theory that the invention is generic, is such a theory tenable? Admittedly the language employed in the

patent application does not aptly express a claim of that character. Nowhere does the applicant suggest the view that he has discovered the principle of a "beam heater," or any broad, fundamental idea in relation thereto. Upon the other hand, there is an implied recognition of the fact that the principle has already found expression in the art. One of the main purposes of the invention, the applicant declares, is to provide, not a beam heater or a beam of radiant energy, but the means for enclosing and protecting the highly heated members of such a heater. And when we consider the prior art, with which Brown was doubtless familiar, [21] the reason for limiting his claims to minor improvements, and particularly to protective devices, becomes apparent. He was at the head of the plaintiff company, which at the time was actively engaged in manufacturing and marketing beam heaters, under the Shoenberg patent, of which it was the assignee. (United States No. 1,109,551, issued September 1, 1914.) And it is difficult to resist the conclusion that, when the plaintiff's heater No. 7, illustrated in the patent in suit, was first put on the market in 1916, the plaintiff understood and assumed that it was protected by the Shoenberg patent. That in so far as concerns the general principle or generic idea this patent anticipates the one in suit is scarcely open to question. The invention is described as relating to electric heaters or radiators in which, as here, "the heat waves generated by resistance coil are directed by a polished metal reflector." Even in certain details now emphasized by the plaintiff there is substantial

identity, for Shoenberg also provided both a wire guard for the front and a protective casing for the back of the reflector. Distinction is sought to be made because the reflector illustrated in the Shoenberg patent differs in contour from the one illustrated in the Brown patent, but admittedly this difference is not of the essence. The latter also differs from the one used by the defendant, in that the one is hemispherical and the other parabolic. It is not a question of the specific form illustrated, but of the principle involved and the scope of the claims of the patent, and it would hardly be contended that one manufacturing a device in all other respects like that illustrated in the Shoenberg patent could escape a charge of infringement by showing that he used a purely parabolic reflector. That patent is broad enough to embrace either a parabolic or hemispherical reflector. It refers to the reflector merely as a "reflector," without specifying the form, or as being "dome-like," or "hemispherical," or as having an "inner concave surface." But it discloses [22] the purpose and principle or generic idea quite as clearly as does the patent in suit, and if it does not fully anticipate the latter, it is only because of the wide annular flange in the later device and possibly certain details in the matter of insulating the conducting wire and connecting it with the resistance coil. One has only to glance at the photograph (Defendant's Exhibit "E") of plaintiff's exhibit at the Panama Exposition to see how fully the general principle of such a heater had already in 1914 found expression in the art. It is true that the types

of reflector illustrated in the Shoenberg patent and employed by the plaintiff prior to the patent in suit created a less perfect beam, but the difference is in degree only. In this respect the defendant's heater is an advance upon the one put out by the plaintiff under the patent in suit. But aside from the Shoenberg patent, the principle is clearly disclosed in the earlier patents and in the prior art. In English patent No. 12,320, Kempton claimed that by the use of a reflector of "parabolic or conical shape," located in a fireplace or in open space, for the purpose of throwing the heat into the room, gas could be used for heating purposes as cheaply as coal. He shows a gas jet in the same relation to the reflector as here the resistance coil. The principle is suggested in the Morse patent (United States No. 881,017, March 3, 1908), illustrating a device for applying heat to a portion of the body, to be used in the practice of therapeutics. In the English patent for the "Simplex," (No. 19,971, September 4, 1914), there is a very complete disclosure. True here again the reflector illustrated has the configuration of a cone, but the inventor's preference for this form seems to rest upon considerations of economy of construction. He adds that it may be "parabolic or the like contour." The heating element both in form and in its relation to the reflector closely resembles that [23] of the defendant's device, and the front of the reflector is fitted with a wire guard. The object of the invention we are informed "is to provide an apparatus of convenient form in which the radiant heat issues in the form of a condensed beam of rays, di-

vergent, approximately parallel, or convergent, as the case may be, and adapted to be pointed in any desired direction, horizontally or vertically." It would be difficult to state the principle more clearly or comprehensively. This device was manufactured and generally advertised before the Brown application was filed. Material also are the Warner patent of December 8, 1914 (United States, No. 1,120,003), and the Geiger patent of August 8, 1916 (United States, No. 1,194,168), and the Taylor patent of November 16, 1916 (English, No. 102,070). Note-worthy also are the "Ferranti Fires," devices in the market and more or less generally advertised as early at least as 1911, as appears from the trade literature offered in evidence.

THE DESIGN PATENTS.

One of these patents covers a casing of the precise form illustrated in the mechanical patent just considered, and the other a casing similar in form, exclusive of the wide annular flange. There could be, and of course is, no claim for size, color, or material, nor, as I understand, does the patent extend to the supporting standard or pedestal, which is of the common telephone type. The patented designs, therefore, relate to the reflector and the protective devices, viewed, of course, in connection with the attendant heater element.

The first design, the one with the wide annular flange (No. 51,043), is not thought to be infringed by the defendant's devices. There are neither reproductions nor colorable imitations. True, there are points of resemblance; so there are also points

of resemblance between these devices and the common telephone and electric fan. In all reflectors, whether for headlights or [24] heaters, there are similarities of appearance. So common is a concavo-convex reflector that the word reflector alone immediately suggests such a device. But taking the heaters here as a whole and excluding from consideration slight differences of detail, there are two important differentiating features: Whatever may be said in support of the view that the turned-over edges of the defendant's reflectors are the functional equivalents of the broad annular flange in the plaintiff's heater, clearly in so far as affects appearance they are wholly dissimilar, and the broad flange is a conspicuous differentiating feature of the plaintiff's design. So of the heater element. As shown by the testimony of one of the plaintiff's witnesses, who first observed the Westinghouse heater upon passing a show-window where it was displayed, this is an outstanding feature in the appearance of the device,—the attention is arrested by it; and the incident so testified to is in accord with my own experience during the course of the trial. When it was necessary quickly to identify the plaintiff's device, grouped as it frequently was with many others in the courtroom, my eyes involuntarily sought the element as the most conspicuous distinguishing mark. If, therefore, we consider the entire assemblage—the reflector, the protective members, and the element—as the design, there is substantial dissimilarity in appearance.

But in the second place, in so far as they are alike, the plaintiff's casings, as well as those of the defend-

ants, are entirely devoid of purely ornamental features, either of form or drapery; they are nude utilities. That, of course, is not to say that they are without comeliness. By reason of their simplicity and symmetry and the "glow," they may be pleasing to the eye; but the point is that they are bare mechanisms, no parts or lines of which can be dispensed with or substantially altered [25] without impairing their utility, and one cannot, under cover of a design patent, debar others from employing the mechanical means necessary to give effect to a known and useful mechanical principle, however pleasing to the eye such requisite mechanism may be.

In the third place, unless limited to the precise form illustrated in the drawing, the plaintiff's design is anticipated in prior patents, to some of which reference has already been made, and, in view of the prior art, is without invention. Indeed it is difficult to perceive upon what basis a claim of patentable novelty for No. 51,253, the design without the annular flange, can be predicated. The casing shown is simply a reflector of the most familiar type, old in the art, and without novelty either in configuration or feature. True, upon placing the device of this design as actually manufactured side by side with the heater actually manufactured by the plaintiff under the Shoenberg patent, we have a substantial contrast in appearance, but the contrast is of material, color, and size, and not of form. Make both of the same size and finish them both in nickel or copper, and we have similarity instead of contrast. Who, without

having the specific object in mind, would, after observing with reasonable care the drawing of patent 51,253, and thereupon being handed a photograph of the plaintiff's exposition exhibit, say with confidence that the device covered by the drawing is not shown in the photograph? The point is that in the absence of contrasting color or size there is a striking similarity in general appearance. Moreover, the design is almost identical with that shown in Figure 1 of the Taylor patent above referred to. (English, 102,070.) Substantial identity is expressly conceded by counsel for the plaintiff, who, however, contests the priority of the Taylor patent. It is true that while this patent was applied for on January 11, 1916, it was not finally issued until November 15, 1916. It is further true that Brown's "invention," as disclosed [26] in his mechanical patent and his design patent 51,043 (covering the annular flange) was made as early as April, 1916, although the patents were not applied for until the following year. But if there is any evidence that the design invention of patent 51,253 antedates the application, which was filed July 10, 1917, it has escaped my attention. It is not without significance that in the application for the Taylor patent, made before any of the Brown "inventions," the applicant carefully limited her claim with the explanation that she was "aware that it is not broadly new to construct an electric radiator with a resistance wire wound spirally upon a tubular member made of refractory material, such resistance element being mounted in front of a reflector, with a protecting guard in front of the element." In

its more conspicuous features the plaintiff's design also closely resembles the Warner device, the parabolic "Simplex," and the "Ferranti Fires." If it be said that the element in the Warner heater distinguishes its general appearance, the answer is that, as already noted, such distinction also exists between the plaintiff's designs and the alleged infringing devices.

As bearing upon the question of invention in either the mechanical or the design patents, or both, plaintiff puts great stress upon the fact that following the placing on the market of its No. 7 heater (the device with the broad annular flange), there was an increased demand and it soon went into general use, but while the fact is to be recognized as having weight, I have not deemed it sufficient, under all of the circumstances, to overcome the considerations hereinbefore stated. From the record it is manifest that in the period of four or five years immediately preceding the Brown patents there had come to be an unusual and widespread interest in the matter of electric heating. The invention of nichrome wire solved the problem of a dependable and efficient element, but the right to its use was involved in litigation, which [27] was not finally concluded until about the time of the Brown patents. With this question out of the way, heaters began to be put on the market in increasing numbers, and doubtless by means of advertising and the arts of salesmanship, the desire for such heaters was greatly stimulated. In this work the plaintiff was active, but undoubtedly it was to some extent also the beneficiary of the ac-

tivities of its competitors. It may be conceded that its No. 7 heater was in some degree more efficient than its earlier devices, and was more attractive in appearance, but, as already pointed out, its attractiveness was due not so much to slight changes in form as to increase in size and more particularly a substitution of the warm copper bowl with suitable trim in the place of the nickel type of heater. Furthermore, in the changes of social and housing conditions and in the rapidly growing tendency to use electrical energy for divers purposes in the home, may doubtless be found contributing causes for the increased demand. But whatever may be the full explanation, such popularity as heater No. 7 may have had and may now have cannot reasonably be attributed merely to the slight change in the contour of the reflector or the addition of the broad annular flange, or to both of these changes.

It is urged that in a measure the present design suits are ruled by the judgments recently procured by the plaintiff in this court against other parties, in actions at law for infringement of the same patents. The causes were tried with a jury, resulting in nominal verdicts for the plaintiff, and while they were pending upon writ of error in the Circuit Court of Appeals the parties made some adjustment, the nature of which is not disclosed, and accordingly, by agreement, the writs were dismissed. Just what effect should be given to the judgments under such circumstances is not entirely clear. It is, of course, not contended that they constitute a judicial estoppel. The judge who presided at the trial, it is true,

must have entertained the view that the evidence was sufficient to go to the jury, but there is nothing in the records to indicate [28] what his conclusion would have been had he been called upon independently to decide the entire issue. I find no difficulty in accepting his views of the law as set forth in his charge; but while it is to be conceded that uniformity of decision in the same tribunal is highly desirable, and to that end, in the case of a doubtful issue, one judicial agency may with propriety defer to a precedent established by another of the same dignity, I am unable to say that here I entertain such doubt as would warrant me in subordinating my own judgment to that of the jury in the other cases, even if it be assumed that the evidence is substantially the same.

There being no controversy touching such general principles of patent law as are involved, I have thought it unnecessary to add to the length of the opinion by stating them. Nor would it serve any useful purpose to review the cited cases. Altogether they are, of course, helpful, but no single one can be regarded as a controlling or even highly persuasive precedent upon the real issue, which is comparatively narrow, and more largely one of fact than of law.

For the reasons stated, the bills must be dismissed, and such will be the decree in each case, with costs.

[Endorsed]: Filed Oct. 4, 1920. Walter B. Mal-
ing, Clerk. [29]

(Title of Court and Cause.)

Decree.

This cause came on to be heard before the Honorable FRANK S. DIETRICH, United States District Judge, at the July, 1920, Term of court, on the 25th day of August, 1920, and thereupon was thereafter tried from day to day until and including the second day of September, 1920, upon the introduction of evidence oral and documentary, by each party hereto, and upon the argument of counsel; and thereupon after consideration thereof it was, on the 4th day of September, 1920, ORDERED that the bill of complaint be dismissed with costs to defendant, and that a decree be signed, filed and entered accordingly.

NOW, THEREFORE, it is hereby ADJUDGED AND DECREED that said bill of complaint be and the same is hereby dismissed, with costs to defendant to be taxed.

Dated: Nov. 1, 1920.

R. S. BEAN,
United States District Judge.

[Endorsed]: Filed and entered November 1, 1920.
Walter B. Maling, Clerk. [30]

In the Southern Division of the United States District Court for the Northern District of California, Second Division.

No. 544.

MAJESTIC ELECTRIC DEVELOPMENT COMPANY,

Plaintiff,

vs.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY,

Defendant.

Stipulation in Re Statement of Evidence on Appeal.

IT IS STIPULATED AND AGREED by and between the parties to the above-entitled suit, that the annexed statement of evidence on appeal is true, complete and properly prepared, and that, under Federal Equity Rule 75, the same may be approved by the Honorable MAURICE T. DOOLING, Judge of and holding Court in the District Court of the United States for the Northern District of California.

Dated: December 16th, 1920.

JOHN H. MILLER,

Attorney for Plaintiff.

WESLEY G. CARR,

DAVID L. LEVY,

WALTER SHELTON,

Attorneys for Defendant.

IT IS ORDERED that the annexed statement of evidence in the above-entitled suit be and the same is hereby approved.

M. T. DOOLING,

Judge of the United States District Court for the Northern District of California.

Dated: December 17, 1920. [31]

In the Southern Division of the United States District Court for the Northern District of California, Second Division.

No. 544.

MAJESTIC ELECTRIC DEVELOPMENT COMPANY,

Plaintiff,

vs.

WESTINGHOUSE ELECTRIC & MFG. CO.,
Defendant.

**Statement of the Evidence Under Equity Rule 75 for
the Purposes of Appeal.**

This case came on for trial on August 30, 1920, in the above-entitled court at the City and County of San Francisco, State of California, before Honorable FRANK S. DIETRICH, United States District Judge for the District of Idaho, sitting by special appointment to hold court in the Northern District of California, Southern Division, during the months of August and September, 1920, John H. Miller, Esq., appearing as attorney for plaintiff,

and Wesley G. Carr, Esq., and David L. Levy, Esq., as attorneys for defendant.

John H. Miller made the opening statement on behalf of plaintiff, and Wesley G. Carr made the statement on behalf of the defendant, and thereupon the following proceedings were had:

Plaintiff offered in evidence the original design letters patent No. 51,253, dated September 11, 1917, and issued to Majestic Electric Development Company, the plaintiff, as the assignee of Edmund N. Brown, for the term of seven years from September 11, 1917, which said letters patent were received in evidence and marked "Plaintiff's Exhibit No. 1, Patent in Suit," [32] and the same is hereby referred to and by such reference made a part hereof.

Plaintiff also offered in evidence one of the design electric heater casings, made under said patent and the same was received in evidence and marked "Plaintiff's Exhibit No. 2," the same being hereby referred to and by such reference made a part hereof.

Plaintiff also offered in evidence another electric heater casing made under the patent in suit, differing from the first heater only in its height, and the same was received in evidence and marked "Plaintiff's Exhibit No. 3," the same being hereby referred to and by such reference made a part hereof.

Plaintiff next offered in evidence a Westinghouse Electric Heater Casing, being the same which had been offered in evidence in the prior case No. 493,

and there marked "Plaintiff's Exhibit No. 7," and the same was received in evidence in the case above and marked "Plaintiff's Exhibit No. 4, Westinghouse Heater," and the same is hereby referred to and by such reference made a part hereof.

It was admitted by counsel for defendant that Plaintiff's Exhibit No. 4, Westinghouse Heater, and others similar thereto, were made and sold by the defendant prior to the commencement of this suit without license of or consent of plaintiff.

Plaintiff then offered in evidence a letter written by plaintiff's attorney to defendant under date of July 29, 1919, addressed to the Westinghouse Electric & Manufacturing Company at East Pittsburgh, charging an infringement of the patent in suit, and also a letter from defendant's attorney dated August 4, 1919, in answer to the last named letter, and the two said letters are in the words and figures following, to wit: [33]

"San Francisco, July 29, 1919.

Westinghouse Electric & Mfg. Co.,

East Pittsburgh, Pa.

Gentlemen:

On behalf of the Majestic Electric Development Co. of this city, I desire to inform you that the electric heaters marketed by you are infringements upon some of the electric heater patents owned by the Majestic Co. and I must request that you desist from further sale of such heaters. In a suit recently tried in the U. S. District Court of San Francisco, brought by the Majestic Electric Development

Co. against the Hotpoint Electric Heating Company and its agents, it was decided that the so called HEDLITE heater formerly manufactured by the Hotpoint Electric Heating Co. and now being manufactured by the Edison Appliance Co. is an infringement upon design patent No. 51,043, owned by the Majestic Company. In the trial of that case, one of the Westinghouse heaters was in evidence and tested out. It is as much an infringement of this design patent as is the HEDLITE heater. Not only is it an infringement of the patent mentioned, but it is likewise an infringement of design patent 51253 and mechanical patent No. 1245084 both owned by the Majestic Electric Development Co.

On July 19th, I wrote to your attorney, Mr. Wesley G. Carr, advising him of these matters, but have had no reply from him.

We had hoped that after the decision of the Court in the above case, that your company would respect the decision and discontinue the infringements; but the fact seems to be that you are disregarding said decision, and continuing with the marketing of your infringing heaters. This causes us considerable damage and some of our orders are being cancelled on account of your infringing operations.

We beg, therefore, to call your attention to this matter and ask that you discontinue this infringement, otherwise we shall be compelled to commence legal proceedings against you or your agents. Before doing so, however, we beg that you will advise us of your intentions in the matter, and

therefore we shall wait a reasonable length of time before commencing court proceedings.

Yours very truly,
JOHN H. MILLER."

"August 4, 1919.

Mr. John H. Miller,
723 Crocker Bldg.,
San Francisco, Cal.

Dear Sir:

Your letter of July 29, addressed to the Westinghouse Electric & Manufacturing Company has been referred to me for attention. Your letter of July 19, addressed to me and covering the same subject-matter, was given careful attention and I replied to it in detail on July 25th. My reply to your former letter is believed to constitute an adequate reply to yours of July 29 except that it does not state specifically whether the Westinghouse Company will or will not discontinue manufacturing the heaters of which you complain. For reasons which I set forth in my former letter, I cannot see that the Westinghouse Company would be justified, at the present time, in retiring from the field as you expect, or at least, desire it to do.

Yours truly,
WESLEY G. CARR,
Attorney." [34]

Thereupon plaintiff rested its *prima facie* case.

DEFENDANT'S TESTIMONY.

Defendant produced and offered in evidence page 79 of a printed publication entitled "The Electrical Times," dated January 25, 1912, pub-

lished at London, England, and by stipulation of counsel it was agreed that the original should be withdrawn and a photographic copy thereof substituted therefor, which said photographic copy was then offered in evidence and was marked "Defendant's Exhibit 1," the same being hereby referred to and by such reference made a part hereof.

Thereupon plaintiff rested its *prima facie* case.

Defendant produced and offered in evidence page 37 of a printed publication, entitled "The Electrical Times," dated January 11, 1912, published at London, England, and by stipulation of counsel it was agreed that the original should be withdrawn and a photographic copy thereof substituted therefor, which said photographic copy was then offered in evidence and was marked "Defendant's Exhibit 3," and same being hereby referred to and by such reference made a part hereof.

Defendant produced and offered in evidence page 239 of a printed publication, entitled "The Electrical Times," dated March 7, 1912, published at London, England, and by stipulation of counsel it was agreed that the original should be withdrawn and a photographic copy thereof substituted therefor, which said photographic copy was then offered in evidence and was marked "Defendant's Exhibit 3," the same being hereby referred to and by such reference made a part hereof.

Defendant produced and offered in evidence page 362 of a printed publication, entitled "The Electrical Times," dated March 6, 1913, published at London, England, and by stipulation of counsel it was agreed that the original should be

withdrawn and a photographic copy thereof substituted therefor, which said photographic copy was then offered in evidence [35] and was marked "Defendant's Exhibit 4," the same being hereby referred to and by such reference made a part hereof.

Defendant produced and offered in evidence page 364 of a printed publication, entitled "The Electrical Times," dated March 6, 1913, published at London, England, and by stipulation of counsel it was agreed that the original be withdrawn and a photographic copy thereof substituted therefor, which said photographic copy was then offered in evidence and was marked "Defendant's Exhibit 5," the same being hereby referred to and by such reference made a part hereof.

Defendant produced and offered in evidence page 214 of a printed publication, entitled "Supplement to the Electrician," dated October 3, 1913, published at London, England, and by stipulation of counsel it was agreed that the original should be withdrawn and a photographic copy thereof substituted therefor, which said photographic copy was then offered in evidence and was marked "Defendant's Exhibit 6," the same being hereby referred to and by such reference made a part hereof.

Defendant produced and offered in evidence page 353 of a printed publication, entitled "The Electrical Times," dated October 9, 1913, published at London, England, and by stipulation of counsel it was agreed that the original should be withdrawn and a photographic copy thereof substituted there-

for, which said photographic copy was then offered in evidence and was marked "Defendant's Exhibit 7," the same being hereby referred to and by such reference made a part hereof.

Defendant produced and offered in evidence page 591 of a printed publication, entitled "The Electrical Times," dated December 4, 1913, published at London, England, and by stipulation of counsel it was agreed that the original should be withdrawn and a photographic copy thereof substituted therefor, which photographic copy was then offered in evidence and [36] was marked "Defendant's Exhibit 8," the same being hereby referred to and by such reference made a part hereof.

Defendant produced and offered in evidence page 12 of a printed publication, entitled "Supplement to the Electrician," published at London, England, dated October 16, 1914, and by stipulation of counsel it was agreed that the original should be withdrawn and a photographic copy thereof substituted therefor, which said photographic copy was then offered in evidence and was marked "Defendant's Exhibit 9," the same being hereby referred to and by such reference made a part hereof.

Defendant produced and offered in evidence page 162 of a printed publication entitled "The Electrical Times," dated August 31, 1916, published at London, England, and by stipulation of counsel it was agreed that the original be withdrawn and a photographic copy thereof be substituted therefor, which said photographic copy was then offered in evidence and was marked "Defend-

ant's Exhibit 10," the same being hereby referred to and by such reference made a part hereof.

Defendant produced and offered in evidence page 163 of a printed publication, entitled "Supplement to the Electrician," published at London, England, dated August 16, 1912, and by stipulation of counsel it was agreed that the original should be withdrawn and a photographic copy thereof substituted therefor, which said photographic copy was then offered in evidence and was marked "Defendant's Exhibit 11," the same being hereby referred to and by such reference made a part hereof.

Defendant produced and offered in evidence an advertising insert of a printed publication entitled "The Electrician," dated September 20, 1912, published in London, England, and [37] by stipulation of counsel it was agreed that the original be withdrawn and a photographic copy thereof substituted therefor, which said photographic copy was offered in evidence and marked "Defendant's Exhibit 12," the same being hereby referred to and by such reference made a part hereof.

Defendant produced and offered in evidence page 1 of a printed publication entitled "Prometheus," dated October 3, 1906, published at Berlin, Germany, in the German language, and by stipulation of counsel it was agreed that the original be withdrawn and a photographic copy thereof substituted therefor, which said photographic copy was offered in evidence and was marked "Defendant's Exhibit 13," the same being hereby referred to and by such reference made a part hereof.

Defendant produced and offered in evidence

page 11 of a printed publication, entitled "Prometheus," dated October 3, 1906, published at Berlin, Germany, in the German language, and by stipulation of counsel it was agreed that the original be withdrawn and a photographic copy substituted therefor, which said photographic copy was offered in evidence and marked "Defendant's Exhibit 14," the same being hereby referred to and by such reference made a part hereof.

Defendant produced and offered in evidence page 14 of a printed publication entitled "Electrical Record," dated May, 1907, published at New York City, New York, and by stipulation of counsel it was agreed that the original be withdrawn and a photographic copy thereof substituted therefor, which said photographic copy was offered in evidence and marked "Defendant's Exhibit 15," the same being hereby referred to and by such reference made a part hereof.

Defendant produced and offered in evidence page 19 of a printed publication entitled "Electrical Record," dated May, 1915, published at New York City, N. Y., and by stipulation [38] of counsel it was agreed that the original be withdrawn and a photographic copy thereof substituted therefor, which said photographic copy was offered in evidence and marked "Defendant's Exhibit 16," the same being hereby referred to and by such reference made a part hereof.

Defendant produced and offered in evidence an electric heating device which was marked "Defendant's Exhibit 'A,'" and it was admitted by counsel for plaintiff that said device was manufactured and

sold by the Majestic Electric Development Company more than two years prior to the date of application for the patent in suit.

Defendant also produced and offered in evidence another electric heating device which was marked "Defendant's Exhibit 'E,'" and it was admitted by plaintiff's counsel that the said device was made and sold by the Majestic Electric Development Company more than two years prior to the application for the patent in suit.

Defendant then produced and offered in evidence another electrical heating device which was received and marked as "Defendant's Exhibit 'C,'" the same being a duplicate of a device which was offered and received in evidence in the said prior litigation, and there marked "Plaintiff's Exhibit 13," and it was admitted by the plaintiff's counsel that such device was made and sold by the Majestic Electric Development Company as early as the fall of 1915.

Defendant produced and offered in evidence another electrical heating device which was marked "Defendant's Exhibit 'D,'" and it was conceded by plaintiff's counsel that such device was made and sold by Majestic Electric Development Company more than two years prior to the application for the patent in suit.

Defendant produced and offered in evidence and the same was marked "Defendant's Exhibit 'E,'" a photograph of the [39] Majestic Electric Development Company's exhibit at the Panama Exposition prior to May, 1915.

Testimony of Victor S. Beam, for Defendant.

Defendant then produced as a witness VICTOR S. BEAM, who having been duly sworn, testified as follows:

I am 44 years of age and reside at Maplewood, New Jersey; my occupation is electrical and mechanical engineer with offices at 165 Broadway, New York City. I graduated in Electrical Engineering from Princeton University, in 1899. From there I entered the employ of the Westinghouse Electric & Mfg. Co. in July, 1899, and have been connected with that Company either directly or indirectly ever since. I am still in the employ of that company. During my employment with the Westinghouse Company and others I became quite generally familiar with the design and operation and construction of various electrical devices and machines manufactured in this country and have always followed the electrical heating art quite closely. I am quite familiar with the laws and rules governing those devices and the design and operation of the same.

The following question was propounded to the witness by defendant's attorney, viz:

“Q. Please give the pertinent portions of the history of this specific art as applicable to the plaintiff's and defendant's heaters now before the court?”

Plaintiff's counsel objected to said question as entirely improper because it calls for the opinion of the witness in that it calls for what he considers to be

(Testimony of Victor S. Beam.)

the pertinent part of the prior art and also those parts that are applicable to this device.

The objection was overruled, to which ruling plaintiff excepted, and thereupon the defendant's witness answered as follows: [40]

"A. These devices and the patents relate to a special form, a special type of electric heating, namely, the heating of the object; they are not attempting to heat the whole room or enclosure in which the object is located. The object is usually a person who wants to be warmed, and that purpose necessarily brings in the matter of portability; the device should be portable, so as to be carried around from one place to another in the room, or from one room to another; and of course, if the owner moves from one part of the city to another, to take it with him. It is related quite closely to the electric light art. It was quite old to have flash lights to carry around when you wanted to light up a particular object; you would not have enough current to light the whole room, but you would simply light the particular object you were interested in. They have search-lights on boats and other places, selective in application so that they only light up one or a few objects at a time.

They have had flood light projectors, in which large quantities of light were generated, and used to light up large objects, and oftentimes buildings. That art is quite old. Flood lighting was done in numerous places, and I daresay it goes back to 1905 and 1906, at least, but it reached almost perfection at the Panama Pacific Exposition in 1915 at San

(Testimony of Victor S. Beam.)

Francisco. The previous World's Fairs had been lighted in a very extensive manner, with the requirement of wiring the outside of the building. At the Buffalo Exposition in 1901, that was quite a feature; they used current from Niagara Falls to light up the outside of the building, in order to get the esthetic effect. That was much advertised. In the exposition in 1904 at St. Louis that plan was likewise followed, but at the Panama Exposition in San Francisco they simply selected the object in a large area and lighted that up. Also headlights use the [41] same scheme. Of course, heat and light are really undistinguishable, because no one has yet produced a source of light that does not give heat; that is the great object that nobody has yet done. Likewise, when you try to get electric heating, you do not get it very effective unless you have some light with it to attract the eye; you must light up the device, because there is a certain amount of psychology about it; you have got to have people attracted by the heat and the light.

Now, the first projecting device for heat of which I have knowledge was the device shown in Morse's United States Patent, No. 881,017. There an incandescent lamp, probably an inefficient one, was placed in front of a concave surface, with a guard in front to protect it, and that was used as stated in the patent, to concentrate the heat upon the affected part. In that particular case, it was sought to apply heat to certain portions of the body; that would be usually held quite close to the body, but it has the prin-

(Testimony of Victor S. Beam.)

ciple there of selecting the object you are going to heat, and throwing the rays all in one direction. Quoting from lines 71 to 77 of this patent, I read:

‘The feature of mounting the electric lamp in a horizontal position within the reflector is considered highly advantageous, as by this arrangement, the lamp projects its heat more efficiently onto the surface of the body, and furthermore, the socket of the lamp then operates effectively as a handle, facilitating the handling of the heating device.’

There in that device you have both heat and light projected in a beam onto a selected object.

Now, another early device was gotten out by the Westinghouse Electric & Manufacturing Company about 1912 or 1913 and was shown in the Geiger patent, No. 1,194,168, granted August 8, 1916. This device was put on the market, and has [42] been on sale ever since by the Westinghouse Company. That device consisted of a concave structure, a shell somewhat resembling a seashell, the idea being to make it extremely ornamental; the heat source in that case was carbon wires or coils inside of tubes. It is, in effect, an incandescent electric lamp, although of low efficiency, so far as light is concerned. But the device was made in considerable quantities, and gave out both heat and light, and projected the rays of both heat and light in a definite direction, selective, so as to light and heat the object. The patent says, ‘Although the reflector 8 is shown of the clam-shell design, it is understood that such a reflector may

(Testimony of Victor S. Beam.)

be of any other design or form,' and as to the source of heat and light it says 'preferably it should be of the luminous type, preferably arranged side by side and extend upward in front of the reflector. It is understood that other suitable types of heating units may be employed with my invention.'

Now, that device was extremely ornamental; it was not as efficient as some of the devices to-day, and of course it is objectionable in that these lamps break quite readily; an incandescent lamp at its best is quite fragile, and it has many objections, but it was highly ornamental. I have one of these here, and produce the same, which consists of a clamshell coppered on the inside, pleasing in appearance, with incandescent lamps placed within the curvature of the shell, and is a device that a housewife would not certainly object to having around. They might not possibly buy it simply for the beauty of it, but it certainly is more pleasing in appearance than some of the more practical devices which have followed it. That, as I say, was built by the Westinghouse Company quite a number of years, and it was about the only type of heater that it could build at that time, prior to say the [43] middle of 1917, because while it was recognized that incandescent lamps were not the best sort of thing to generate heat for that purpose, the advisability of utilizing the more efficient form of wire was doubted by the Westinghouse Company, first because there was considerable doubt about the wires which were then on the market standing up, that is, their

(Testimony of Victor S. Beam.)

resisting oxidation, and the other handicap that presented itself was the patent situation with respect to the nickel-chromium alloy of the heating element, the only heating element that would stand up in exposed conditions, when being burned or illuminated. When an electric wire is exposed to the air, heated to a luminous state, it is attacked so readily by the oxygen of the air that it almost immediately burns up; the carbon filament in a lamp would not last an instant if exposed to the air; they have to put that in a vacuum. Of course, there are a lot of heat applications where you cannot use lamps, and there were devices using wire on the market, but to a great extent they were in places like in a flat-iron where your wire is covered up and not exposed to the air, so that while there were, prior to the middle of 1917, considerable heating devices on the market, and quite a number with the wire exposed, yet there was a patent situation there that had not been cleared up, and it was not until 1917 that the Westinghouse Company felt free to extend its operations in that particular field. That patent situation was the result of a patent to Marsh, that was granted in 1906 but it was some years before it was put in litigation, and it developed very slowly under it, because it was held by a comparatively small company, and the litigation was long-drawn out, and that was not finally decided until some time in 1915 by the Court of Appeals of the Seventh Circuit, the case of Hoskins Electric Manufacturing Co. v. General Electric Company. [44] In that case,

(Testimony of Victor S. Beam.)

from which I have an extract, the court pays great tribute to the alloy for making up a heating device. It said:

‘The invention of toasters, heaters’—

Mr. MILLER.—I object to his going into this matter. I don’t know what he is reading from, so far as that is concerned, but I do not think it is proper for him to go into a matter of this kind regarding the Marsh patent. The Marsh patent decisions are reported in the Federal Reporter, and we have access to them.

The COURT.—Yes.

A. (Continuing.) That alloy which is sold under various trade names, one of which is Nichrome, has the distinguished ability to stand up, to resist oxidation when it is red hot, and it is the use of that alloy, the availability of that alloy to the electrical art that has made possible a large number of devices and particularly the devices in question here; that is, the radiant heaters, where the heating element must necessarily be exposed to the air when in operation.

I may have given the impression yesterday that a nickel chromium composition was the only wire that could be used in an exposed heater of that sort. I should correct that, as it would be possible to use platinum if the same could be obtained, but as that is very scarce and very expensive, it is practically out of the question.

The next and perhaps the most interesting prior device of the reflecting heater is that shown in the British patent No. 19,971, of 1913, of the Simplex

(Testimony of Victor S. Beam.)

Conduits Limited. That shows a reflecting heater in several views. The reflector is shown in the figures as a fluted cone, but it mentions in the description that that reflector may have various forms, one of which is a parabola. That appears to be the same device that is shown in exhibits Nos. 9 and 10. Now, the form shown [45] in the drawings is rather of an ornamental nature, in that it has the fluting. That does not tend to its efficiency.

Mr. MILLER.—I object to this line of testimony.

The COURT.—Yes.

Mr. MILLER.—When he undertakes to say that it does not tend to its efficiency, or something like that, that is something beyond the theory of this case.

The COURT.—Yes, I think so.

A. The device as shown in Figure 1 consists of a stand which is somewhat like the stand that is used for electric fans. It consists of a dome-shaped piece, and of a vertical standard, and then mounted in that is a U-shaped trunnion; that is the form illustrated in the Westinghouse device in this case; then the cone-shaped reflector is mounted so as to tilt in that trunnion, and, therefore, the direction of the light rays is adjustable. Figure 1 is a side view of the whole device, Figure 2 is a front view, the trunnion arrangement being shown in dotted lines. Now, as I say, the fluted cone-shape is shown in that figure for the reflector, but in the provisional specifications it is set forth that the condensed beam of rays may be divergent or approximately parallel or convergent, meaning that the reflector may have various

(Testimony of Victor S. Beam.)

forms, and then, further along, in the second paragraph it says the reflector is preferably in the form of a cone, this being a shape which can be cheaply rolled into form out of sheet metal. Then, further along in line 34, it says, ‘or the reflector may be in whole or in part of parabolic or the like contour, according to the form desired for the emergent beam of rays.’ Then, further on, line 40, in respect of the reflector, it says:

‘It may with advantage be corrugated or fluted, as this stiffens it and improves its internal appearance when the heating element is incandesced.’

So that while it is shown as a corrugated reflector, it is [46] contemplated that it be perfectly smooth on the inside and that it may take the form of a parabola, or the like.

Further, in the provisional specifications, line 42, it says:

‘We prefer to mount the reflector pivotally on a forked stem, which, itself, can pivot on a foot bracket, so that the beam of rays can be turned to point in any direction.’

And then in the complete specifications, line 37, it speaks of the color of the inside of the reflector; it may be of a cast metal lined with copper, and that it may be wholly corrugated. The heating element in this case is arranged in line with the longitudinal axis of the cone or the parabolic reflector, as it may be, and that as an arrangement of coil tends to give uniform distribution of the light rays. It must

(Testimony of Victor S. Beam.)

be recognized in this art that you cannot get your source of light down to a single point. Your coil takes up space, and therefore you cannot get your light source at any geometric or mathematical point; so that you may go to a great deal of trouble to get your reflector mathematically perfect, but you will be thrown out from your calculations by the fact that you cannot get your heating element down to a point; it takes up a space, and, therefore, it is quite advisable to make your reflector conform to the shape of your heating device, or accommodate itself to the requirements of the heating device. A guard is shown in this patent designated by the letter H. It is shown in Figures 2 and 3. It consists of a central ring, with three radiating spokes to support it. I have had a device made up in accordance with this patent for illustrating and herewith produce the same. I have had both the corrugated reflector and the parabolic reflector made. The parabolic reflector is mounted in the trunnion, and the corrugated reflector is separate. The form of guard shown in that particular exhibit I have made up is that shown in exhibit No. 9 in this case. [47]

Another illustration of the prior art devices is the Warner patent 1,120,003, granted December 8, 1914, United States patent. That patent shows—

The COURT.—Cannot you save time by introducing these? I think they are clear enough without lengthy explanation of them.

Mr. CARR.—I do not think it is necessary for the

(Testimony of Victor S. Beam.)

witness to state very much. He might state a word or two with reference to the patent.

The COURT.—Where there is a cut or illustration together with an explanation, it would seem to be quite obvious. It is a question largely of appearance.

Mr. CARR.—I think perhaps that any features that might be deemed necessary and advisable to bring more definitely and specifically to your Honor's attention could be done in the argument.

The COURT.—Yes.

Q. You say this is an American patent?

A. Yes. I was simply going to add that that form of heating coil is not the best, and they had used the lamp in there to illuminate the device, to get the red effect. It shows a concave bowl, mounted on a stand, handles for carrying it. It has, I would say, a rather inefficient form of heating coil, and they have taken the precaution of putting a double casing on there in the rear of the reflector. That is to prevent the part that the public might touch, marked "c" from becoming heated from the coil—as a matter of protection there. There would be a dead air space in between the curved line "e" and the curved line "f."

Another American patent is one to Milton H. Shoenberg, assigned to the Majestic Electric Development Company, San Francisco, and is numbered 1,109,551, and dated September 1, 1914. One particular thing shown in that patent is two linings [48] to the casing, the dead air space in between, as shown specifically in Fig. 10; it has the bowl-shaped reflector, the heating element arranged within the

(Testimony of Victor S. Beam.)

curvature of the same, and it has a guard to protect the heating element from being touched. I would call particular attention to the arrangement of the heating coil with respect to the reflector. You will see that that arrangement runs through all of the devices produced here as the product of the Majestic Development Company, the plaintiff. The coil is arranged transverse to the longitudinal axis of the reflector. That arrangement of the coul has some drawbacks, as it is difficult to arrange it uniformly with respect to the reflecting surface, and portions of the reflecting surface are liable to get very warm, and it is necessary to take some precautions to overcome that arrangement. In the latter forms of the Majestic devices, a flange is provided for protecting the public from being burned by the heat which would be generated in the reflecting surface, and also there is provided that double casing, an additional curved member at the back of the reflector, so as to prevent the public from touching the heated reflector. As I understand it, the intent was to get the coil as near to the focus as possible. Looking at it one way, that is accomplished, but since the coil must have length, it would get very much out of focus at the ends, and that is the part that causes the trouble in the heating of the reflector. That necessity for the flange in the Majestic devices, and likewise for the extra casing is clearly set forth in patent 1,245,084 to E. N. Brown, dated October 30, 1917, in which it says:”

At this point counsel for plaintiff objected to this

(Testimony of Victor S. Beam.)

testimony, as being directed purely to the utility of the device, and that the witness is now proposing to read from another patent and the court ruled that the objection was well taken. [49]

Thereupon the witness continued as follows:

"A. I simply want to mention that the Porter U. S. Patent No. 684,459, granted October 15, 1901, shows a form of guard which might be used in this form of heater; although the device there has the appearance of a fan, and is a fan, it is a fan equipped with a heating element, so that it may blow warm air instead of cool air. When the Westinghouse Company started to design the present type of heater, it had available the straight-line coil of the Simplex Conduits device, and it had the curved reflecting device of the Warner patent, No. 1,120,003. It recognized the fact that it could not get a heating coil at a single point, and that the coil would have to have length, so it arranged its coil in the same order that the Simplex Company of England, had arranged its coil, and utilized the curved reflector of the Warner patent, although it is also clear from the Simplex Conduits Company patent that practically any form of reflector may be used. I have shown in the exhibit 1 one form of parabola, but as a parabola may take many forms, depending upon the distance that you take between the point called the focus and an outside line called the directrix, the law of a parabola being that the distance from any point on the curve to the focus must be the same as the distance to the

(Testimony of Victor S. Beam.)

line on the directrix; but the parabola, as I say, may take many different forms, and when you get a parabola of a wide flare, that is, the distance between the focus and the point on the line, large, you approach a curvature of a circle, so that like in some of the devices here, though one may be a parabola and the other a circle—it is extremely difficult to tell which—a reflector in the form of a segment of a circle cannot, strictly speaking, have a focus, and in the Westinghouse device it is not attempted; it is recognized that it could not have a focus, and no attempt is made to get one; in fact, the heating coil is strung along, extended along the longitudinal axis, and the curve of the reflector is made [50] so as to accommodate that so that the light, going from any point on that coil, is reflected properly. The Westinghouse device has a reflector corresponding to the arc of a circle, and that gives a very wide beam of light, and the coil being arranged on the transverse longitudinal axis, gives a very good heat distribution over the surface of the reflector, so that the reflector keeps cool itself and it needs no provision for protecting the public from the heat, and likewise it has no double casing at the back to provide a dead air space and prevent the public coming in contact with heat. Of course, it has a guard in front to protect the public from coming in contact with the heated coil, such as they provide guards on electric light reflectors and on fans; they are very old and necessary expedients.

[51]

(Testimony of Victor S. Beam.)

"The COURT.—Q. You say the reflector on the Westinghouse device does not become hot?

A. No, not as on the others, where the coil is not arranged properly.

Q. It does not become as hot as the Majestic?

A. No; that has been my experience. The reason for that is, the Westinghouse device is not designed along mathematical or geometrical lines; its design is rather imperical; but it was designed with the appreciation that a straight-line coil on a longitudinal axis is the only proper device; and it has discarded the idea of making the reflector parabolic. A parabolic curvature is theoretically the proper one, if you have got a point for the source of your light and heat. In this case it is both light and heat. If you want strictly parallel rays, you only need to take a parabola and put a point of light at the focus and you will get strictly parallel rays, but the difficulties of that is that your coil must have size, and when you get out of the focus then that more than overcomes any nicety which you have in mind in arranging the curvature of your reflector."

Continuing in answer to questions by defendant's counsel the witness testified as follows:

There are not any features or characteristics of Defendant's Exhibits "A," "B," "C" and "D" which are not readily and obviously apparent to the Court as to which I could give any enlightenment. I think they are all quite clear on the face. I have called attention to the arrangement of the heating

(Testimony of Victor S. Beam.)

coil and called attention to the fact that there are some elements of the earlier ones, the fluted stand, for instance, that is not in the latter device, that is not in the No. 7 heaters. A close inspection shows that the reflectors of all four devices built earlier than No. 7 have a single thickness, that is, in the [52] earlier devices, No. 1, No. 2, 2b, and 3 (Defendant's Exhibits "A," "B," "C," and "D") had a single thickness of the reflector on the back, whereas in No. 7 there are two thicknesses giving a dead air space in between. I might add that double casing allows of bringing out of the electric leads a little better form. You will notice that in all of these prior devices there are two exposed terminals, requiring insulation, sufficient to protect from the atmosphere, whereas in the No. 7 device all that is arranged on the inside, between the two casings, so that the leads come out through a single opening; that is a much better arrangement. Of course the reason for the two connections comes from the fact that they use a transversely arranged coil, and it is necessary to make contact at the two ends of that coil; of course the coil being long requires that the connections to it be quite a distance apart, so that necessitates bringing the contacts out from the rear of the casing at quite a distance from each other. I might point out that with the straight line form of heating coil, as used in the Westinghouse device, that connections to the coil can be made much more readily and without having a double casing. Of course, I point out that the ear-

(Testimony of Victor S. Beam.)

lier devices were nickel plated, whereas the later ones are copper colored. With reference to No. 1, 2, 2b and 3 appearing here as Defendant's Exhibits "A," "B," "C" and "D," those early devices do not have the marginal, relatively wide marginal flange and the double casing found in No. 7 Majestic heater, those earlier devices do not have those protective features.

Cross-examination of Witness BEAM.

On cross-examination the witness BEAM testified as follows:

I am one of the salaried employees of the Westinghouse Electric & Mfg. Co. and have been such since 1916, but either directly or indirectly I have been connected with them [53] since 1899. The principal place of business of that company is at Pittsburgh, but they have offices in New York City, and I have a room there in those offices as any other employee would have. I am a mechanical and electrical expert employed by them in reference to their various devices. In reference to nichrome wire used in some of the devices, it is the wire referred to by me as being covered by the Marsh patent and used by the Westinghouse Company in its coil under a license from the owners of the Marsh patent. The final arrangements for the license were made in the middle of 1917, prior thereto the Westinghouse Company used in the unexposed heating element a wire made by the Driver Harris Company which had no chromium in it, and also some nichrome wire made by the Driver Harris

(Testimony of Victor S. Beam.)

Company and some excello wire, a German wire. While the final arrangements with reference to the license were not completed until the summer of 1917, we actually had the license through our subsidiary company, the Westinghouse Electric Products Company, some time before that, but there was considerable litigation over the matter so that the whole subject was not cleared up until the summer of 1917. This Excelfo wire which I referred to was on sale in the United States, but during the war it was impossible to get it. I believe it was on sale as early as 1912, and I believe anybody in the United States could use it who chose to purchase it, if he overlooked the Marsh patent for the time being. The Westinghouse Company had used some of this excello wire but they used as little as they could.

Mr. Thornton and Mr. Forsbee got up the design of the Westinghouse heater that is involved here. Mr. Thornton was an engineer in the heating department and Forsbee was his assistant, I believe. Neither of these gentlemen came out with me and they are not available as witnesses here. Mr. Thornton is at Mansfield, Ohio, and I don't know where Mr. Forsbee is. [54]

When I said that the Westinghouse Company had at that time available for use in getting up their design this Simplex Conduits English patent, I mean simply that that was an open public document that they could refer to if they desired, a part of the prior art I suppose you could consider the

(Testimony of Victor S. Beam.)

Brown No. 7 heater a part of the prior art in a sense. I believe the Westinghouse Company began getting up this design in the latter part of 1917, but production was held up on account of the war until the latter part of 1918 I believe. As near as I can recollect, the first ones were put on sale in the latter part of 1918. When I say they had available for their purpose this English patent, I do not think that they placed the English patent before them and proceeded to make a design corresponding with that patent; engineers do not usually work that way. They also had available in making up the design everything that was known at that time. They may have taken a Brown No. 7 heater and examined that and looked it over and noted its characteristics at the time they got up the Westinghouse heater. I do not know of my own knowledge regarding that matter. The Westinghouse Company has a heater here which has a clam shell reflector. They began to manufacture and sell that device in 1912 and 1913, and they sold devices of that kind. Mr. Geiger got up the device, and he is the gentleman to whom the patent was issued and it has been assigned to the defendant. Defendant's counsel has produced a heater here which consists of a deep, parabolic reflector mounted on a stand, which could have been made in that way instead of making it in the way of a fluted cone. That particular device was made in Mansfield, Ohio, at our plant, and was manufactured for illustrative purposes in this case, as an interpretation of the pat-

(Testimony of Victor S. Beam.)

ent. It was not manufactured for sale. We have not any like that for sale. The other device consisting of a fluted cone, that is in the same [55] category, that is to say, it was made for illustrative purposes in this case in our plant at Mansfield, Ohio, as an interpretation of the British patent, possibly, well, possibly under my direction and possibly under Mr. Carr's. I was present at Mansfield, Ohio, when it was being made, and I think the only actual suggestion I made was to make the casing a bit thicker so that it would hold its shape. Mr. Thornton really supervised the actual construction. Mr. Carr instructed Mr. Thornton and I did, too, to make it according to the construction of the British patent.

Instructions were given by Mr. Carr as to how to make it. In making the Westinghouse heater which is involved in this case, we made a flat curve instead of a deep one as shown in the Simplex Conduits device because we wanted a little wider spread. With a longitudinal arrangement of the coil we would have to make the bowl to fit it to get the best distribution of heat on the radiating area. They apparently found that that shape caused the best heat distribution. I am sure that is what they were after. I think it did give a better heat distribution than the particular form of parabola shown in the English patent. The patent mentions that you can get divergent or parallel or convergent rays. It gives wide instructions there. You could readily make a wider one under the pat-

(Testimony of Victor S. Beam.)

ent. There are no directions in the patent as to what kind of parabola you would make, whether deep, flat or more elongated, there are no directions in there as to what kind of parabola you can make. The only suggestion about it at all would be the most natural one to make in the first instance, although you were not limited to that. You would make one of the shape more nearly corresponding to the cone shown there, you have a wide choice under the language there. That choice is left to the party who wants to make a parabolic reflector in accordance with that suggestion. It is stated in there that the interior may be smooth; that would necessarily apply as well to the [56] parabola as to the cone. Of course the man who designed that tended rather towards the artistic because he showed the fluted cone; all those British things are rather more ornamental.

On redirect examination the witness said:

"I do not know the composition of the Excello wire to which my attention has been called. I am quite sure it has some nickle and some chromium in it, but the exact composition of it I do not know at this time."

Defendant then offered in evidence certified copy of U. S. letters patent No. 881,017, issued to W. E. H. Morse on March 3, 1908, and the same was marked Defendant's Exhibit "F."

Also copy of U. S. patent No. 1,104,168, issued to Albert J. Geiger, assignor to Westinghouse Electric

(Testimony of Victor S. Beam.)

and Manufacturing Co. on August 8, 1916, which was marked Defendant's "G."

Also copy of the U. S. patent No. 1,120,003, issued to A. A. Warner assignor to Landers, Frary & Clark, on December 8, 1914, which was marked Defendant's Exhibit "H."

Also copy of U. S. patent No. 1,190,551, issued to Milton H. Shoenberg, assignor to Majestic Electric Development Co. on September 1, 1914, which was marked Defendant's Exhibit "I."

Also a model as illustrative of the disclosure of the British patent 19,971 application filed September 4, 1913, and accepted September 4, 1914, and the same was marked Defendant's Exhibit "J."

Also a fluted cone produced as illustrative of the reflector shown in the British patent, 19,971, application filed Sept. 4, 1913, and accepted Sept. 4, 1914, and the same was marked Defendant's Exhibit "K."

Defendant read in evidence two letters received from Mr. John H. Miller, representing the Majestic Electric Development Company, as follows: [57]

"December 31, 1918.

"Westinghouse Electric & Mfg. Co.,

165 Broadway,

New York City, N. Y.

Gentlemen:

On behalf of my client, the Majestic Electric Development Company of this city, I beg to notify you that the electric heaters, shown on page 16 of the Westinghouse Catalogue, Section 8-C, of November, 1918, known as 'Cozy-Glow Radiator,' are an in-

fringement upon United States letters patent No. 1,245,084, of October 30, 1917, and U. S. design patent 51043, of July 17, 1918, also U. S. Letters Patent No. 1255814 of February 5, 1918, all of which patents are owned by the said Majestic Electric Development Company.

The object of this letter is to advise you of the said infringement and request a discontinuance of the same. In default of compliance with this request, we shall be under the necessity of commencing suit against you in the United States District Court for infringement and a recovery of damages and profits. It is possible that in marketing this device you were not aware of the existence of these patents or that you were interfering with the rights of my client. Consequently, before instituting suit, I shall be pleased to hear from you relative to this matter, and an early response will greatly oblige

Yours very truly,

“JOHN H. MILLER.”

“February 7, 1919.

“Westinghouse Electric Mfg. Co.,

165 Broadway,

New York City, N. Y.

Gentlemen:

Attention of Mr. Victor S. Beam.

During an extended absence from my office notice was sent to you by my managing clerk charging infringement of certain patents owned by the Majestic Electric Development Co., and I have your favor of January 6th requesting the specification of the claims of patents relied on.

In reply I beg to say that the claims and patents relied on are as follows, viz.:

1. Design patent, No. 51,253 of Sept. 11, 1917.
2. Patent 1,245,084, of October 30, 1917, claim 1.
3. Patent 1,255,814, of February 5, 1918, claim 2.
4. Patent 1,109,551, of September 1, 1914, claim 1.

The above particulars differ a little from the notice heretofore sent you but the writer of the first letter was not fully posted on the situation and you may disregard the first notification and accept this one as the correct one.

Yours very truly,

“JOHN H. MILLER.”

Defendant's counsel then offered in evidence a model which he claimed to be a reproduction of what is shown in the Warner patent, No. 1,120,003, which he said was not made for sale or copied from anything which was made for sale, but was simply made from what is shown in the patent as nearly as he could [58] make it, and the same was marked Defendant's Exhibit “L.”

Defendant also offered in evidence a device produced and identified by the witness Beam as made under and corresponding to the Geiger patent, No. 1,194,168, referred to as the clamshell heater, and the same was marked Defendant's Exhibit “M.”

Here defendant rested.

PLAINTIFF'S REBUTTAL.

Testimony of Edmund N. Brown, for Plaintiff (In Rebuttal).

In rebuttal plaintiff produced as a witness E. N. BROWN, who testified as follows:

With reference to the use of alloys or wire made of alloys, other than the Marsh device, in these exposed heaters, we used either chromium or nichrome. We used Excello first obtained from the Herman-Boker Company in New York. It was a wire that was on sale in the market, and we used it on all of our heaters prior to the time that we commenced to manufacture our No. 7. We had no trouble in getting that wire until after the War was on. The difficulty then was because of war conditions. We also used another wire besides the Excello called Calido made by a firm at Morristown, N. J. After the plaintiff started in its business in 1914, the first heating device we put on the market was a pendant type, called by our trade name No. 1. The shape of the reflector of the device was what we called a pie-plate and is the same as the device which I now produce.

Here the device in question was put in evidence and marked Plaintiff's Exhibit 6.

(Witness continuing:) After that we put on what is called a kind of a dish plate which is represented by this model, Exhibit "A." It was made of nickel, and intended to be suspended from a point of suspension projecting from the wall or hanging from

(Testimony of Edmund N. Brown.)

the wall. We do not offer that device for sale now.

[59]

The second device which we put on the market was known by our trade name No. 3. It has a glass knob, and it is represented by Defendant's Exhibit "D." We have not continued the sale of this device, and it likewise has been abandoned.

The next device we put on the market was the one termed by our trade name No. 10. That was the same shape as an oil stove. It had a back to it like an oil stove, above one-third of it—the front part was a guard, different from the ones we have on the other type heaters; it stood up on four legs. It looked very much like an oil stove. We also discontinued the sale of that device and it likewise was abandoned.

The next device we put on the market was the one we styled by our trade name "No. 2," and represented by Defendant's Exhibit "B." We abandoned that device likewise as we did the other devices.

The next heaters we put on the market were designated by the trade names 1b, 2b and 3b, which were put on simultaneously. They were to take the place of our former Nos. 1, 2 and 3. They had a bell shape which we thought would be more efficient. Defendant's Exhibit "C" represents the said 2b and 1b was the pendant type, and the one with two elements was 3b. The 1b was the suspension type, the 2b and 3b were the same with the exception of the number of elements. The 2b was to

(Testimony of Edmund N. Brown.)

take the place of the former 2, and the 3b was to take the place of the former 3. We proceeded to sell the 1b, 2b and 3b, and we abandoned them later.

The next heaters were known by our trade names 4, 5 and 6. They were of the square type or box type, and are illustrated by a device which was put in evidence in the prior litigation and marked Plaintiff's Exhibit 18. There were three figures shown at the bottom of the said exhibit. They have the general appearance of a guard or fire place, and are called [60] our box tpye heaters. No. 4 has a single element, No. 5 two elements, and No. 6 three elements. That and the dimensions are the only differences between them. We met with considerable success in the sale of our Nos. 4, 5 and 6 heaters, and have continued to sell them to this date, and carry then in our catalogus stock.

The next type of heater we got out was known by our trade name No. 7, which is represented by my model in evidence here, and that is the one I have testified about on direct examination. Our object in getting out so many styles of these was that I knew I did not have the one that I wanted until I got the No. 7. I was striving until I hit on the No. 7. I did not have the one that I thought was the proper heater. I tested that matter out by putting them on the market and before the trade and selling them, and in this chain of evolution I finally reached the No. 7 heater, and I found that out as I put them out to the trade. The others were abandoned all excepting Nos. 4, 5 and 6

(Testimony of Edmund N. Brown.)

(box type heaters) which we are selling to-day, but that is a different type of heater. After our No. 7 came on the market we didn't put out any other style or change the design. We got out what we called a No. 8 of the same design, only that we put two elements on it; that was to get additional heat. I might add that we are confining ourselves in the No. 8 to absolutely the same type reflector. Our sales of No. 7 which we put on the market in comparison with the sales of previous heaters increased, you might say, with leaps and bounds, I mean the No. 7 heater. The No. 7 heater sold in much greater numbers, several times greater, you might say, as it went on, and the sale of No. 7 is increasing all the time. The present year is the largest we have had up to date in the sale of the No. 7 heaters. I want to say one thing. This year we are putting out a little larger reflector on our No. 7 and calling it 11, [61] but that is the only change. We are calling it that to let the trade have something to distinguish it by. The diameter of No. 11 is 12 inches. We abandoned the four types of heaters and confined ourselves to No. 7 because we considered the No. 7 a better article, and we sold a great many times more of the No. 7 than we did of any other types.

The photograph of our exhibit at the Panama Exposition which has been put in evidence shows our former heaters, No. 1, No. 2, No. 3 and No. 10, and there is one kind of a bird cage we had there, but it was only an experiment; we did not market them generally. We had one hung up on the wall

(Testimony of Edmund N. Brown.)

that was portable also, but we did not sell many of these. Those were all of the portable type. The photograph does not show either 1b, 2b or 3b. Those, the 1b, 2b and 3b were gotten up in the fall of 1915, which was too late for the Exposition to be shown in the photograph. That series, 1b, 2b and 3b, was gotten up to take the place of the 1, 2 and 3.

Referring to the heater of the Simplex Conduits, Limited, of London, England, designated as the British patent, which has been offered in evidence (No. 19,971, application filed Sept. 4, 1913, and accepted Sept. 4, 1914). No heaters of that description and appearance have been on the market in the United States that I know of, and my opportunity of determining what heaters are on the market in the United States is that I make it my business to always keep in touch with anything that comes out in our line.

Regarding the other heater which has been offered in evidence here, the Warner patent (Defendant's Exhibit "4"), I talked to some dealers and they tell me that that has been taken off the market by Landers, Frary & Clark, the manufacturers. I have endeavored to find another one in the city here but have been unable to do so. [62]

When we got up our No. 7 heaters, the heaters which we abandoned and discontinued were the "b" type heaters, 1b, 2b and 3b and No. 10, and previous to getting out of these types we had abandoned the others, 1, 2 and 3. Those prior heaters

(Testimony of Edmund N. Brown.)

were abandoned because we were, you might say, in a period of evolution. We were experimenting all the time to see what was the best and we found the No. 7 a better heater; more efficient, more ornamental to the eye and looked better. Since we put our No. 7 on the market, we have not put any other or different type of heaters on the market, except our No. 8 which is the same as No. 7 with the exception of having two elements. As to how our sales of the No. 7 compared with the sale of our previous heaters which were abandoned, they were so far ahead—they ran into the hundreds of thousands, that is the No. 7 did. We have not sold many thousands of the others. The trade liked the No. 7 better than the others; in fact, to state an expression of the trade, I can state one remark, that we had out now the right kind of a heater; and such like remarks.

Cross-examination of E. N. BROWN.

Our sales of the previous heaters, Nos. 1, 2 and 3 and 1b, 2b, and 3b, were not confined to the Pacific Coast. We were given to understand by the trade that the reason why they seemed to like the No. 7 better than the preceding heaters was that they liked the appearance better; it was also a more efficient heater; they liked the appearance. They made the remark, "Now, you have got something that looks right." Never prior to our No. 7 heater did we market a heater of portable type having a burnished copper reflector. In regard to our ability of disposing of all the heaters of the beam type we

(Testimony of Edmund N. Brown.)

have been able to make, I will say that we have restricted our manufacture on account of the infringement. We could make a [63] great many more than we are making to-day if we knew our rights were being protected. We have not been able to dispose of all we made. We carried over some last year. I believe we could supply the entire trade of the country if we had an unrestricted right.

The Excello wire referred to by me is similar to the Marsh patent wire. We took a license under the Marsh patent because we knew we would be infringing if we did not, and that we would be subject to being sued.

We have a few of the heaters preceding No. 7 on hand of different types that we have been unable to sell, but we do not list them on the market. We have not been able to dispose of those heaters.

Defendant then produced a pamphlet or folder and the witness identified it as a pamphlet which plaintiff is now getting out, containing illustrations and reading matter on heaters Nos. 4, 5, 6, 7, 8, 11, 15, 30 and 35 types, and states that said catalogue represented all the types of heaters which the plaintiff was now marketing except No. 9, which is similar to No. 6, only that it has two more heat units, and in proportion is a little larger in size. The document was then offered in evidence and marked "Plaintiff's Exhibit 9."

Defendant also offered in evidence an exhibit referred to in the former case as "Plaintiff's Ex-

(Testimony of Edmund N. Brown.)

hibit 18," for the purpose of showing the types of heaters of the plaintiff, numbered 4 and 5 and 6, and the same was marked "Plaintiff's Exhibit 10."

At this point counsel for defendant, by permission of the Court, offered in evidence a patent which had formerly escaped his attention, copy of U. S. Letters Patent No. 684,459, issued to E. F. Porter, Oct. 15, 1901, and the same is marked "Defendant's Exhibit 'N.'" [64]

Testimony of George J. Henry, for Plaintiff (in Rebuttal).

GEORGE J. HENRY, being duly called as a witness on behalf of plaintiff, testified as follows:

I am 48 years of age and reside at the City and County of San Francisco. I am a mechanical and electrical engineer and patent solicitor. I have been following the profession of mechanical engineer for 26 years; and I have been engaged in designing and manufacturing mechanical and electrical and physical devices over practically all of that period of time. I have taken out a number of patents on inventions of my own. I have practiced before the Patent Office for the last seven or eight years in connection with my professional work. I am a member of the American Society of Mechanical Engineers, American Society of Civil Engineers, associate member of the American Institute of Electrical Engineers. I have examined a great many mechanical devices, including heaters, including electrical devices generally, reported on some of

(Testimony of George J. Henry.)

them, and had a good deal to do with the designing of many devices in this field.

The Morse patent 881,017 of March 3, 1908 (Defendant's Exhibit "F") shows an incandescent electric bulb mounted inside of a reflector, and a wire cage or guard stretched across the reflector in front of the incandescent lamp. The device is labelled "Heating device." The reflector is presumably of hemispherical shape generally, and the lamp is materially out of focus in the curve in figure 1, the wire screen set relatively close to the lamp and well within the reflector. The device is a therapeutical instrument and is intended for that purpose. The invention relates to a device for applying heat to a portion of one's body, and is intended to be used in the practice of therapeutics. It is a small instrument to be taken in one's [65] hand and carried around and applied to any place where you want heat transmitted. It is principally for that purpose. The handle of the incandescent lamp serves as the handle for the device, and also as a socket for the incandescent lamp. It has no standard or anything of that kind, and is for the purpose of concentrating the heat upon the affected parts as you move it around in your hand from one spot to another to apply the heat, apparently by setting it directly over the part itself, not by reflection, but by holding the heat of the bulb within the container.

In the English patent, entitled "Simplex Conduits, Limited" (No. 19,971, application filed Sept. 4, 1913, and accepted Sep. 4, 1914). I find a conical-

(Testimony of George J. Henry.)

shaped container fluted on its outer surface, at least in the preferable form and in all the forms illustrated. It is mounted upon a standard and swivels in any direction, the standard carrying a U-frame which is pivoted to the conical-shaped reflector. The heat element is a long resistance wire wound upon insulating material located about the axis of the cone, but not coincident with the axis. A wire screen is stretched across the front of the conical opening, so that the whole thing has the appearance of a funnel. The device which you now hand me appears to be the device described in the English patent. The interior of the cone is corrugated, made of copper or plated with copper. The wire screen is a wire mesh, what is known in the trade as wire cloth or wire mesh, fixed in an annular frame, which may be slipped over the front of the heat opening of the conical reflector. It is mounted on horizontal trunnions and also on a vertical swivel or trunnion, so that it can be swung in any direction, up or down, or around a vertical axis. That portion of the specification which refers to changing the cone to a parabola, commencing at line 25, page 3 of the specification, reads as follows:

[66]

“We have found that a diameter of the large end approximately equal to the depth of the cone gives good results, but the cone angle may be greater or less than that was indicated, or the reflector may be in longitudinal section,

(Testimony of George J. Henry.)

in whole or in part, or of a parabolic or the like contour, according to the form desired for the emergent beam of rays."

With regard to the sufficiency of that disclosure as to instructing a person to make the heater of parabolic shape instead of conical shape, I don't think it is any more specific as regards any other shape than that shown that would be perfectly apparent to anyone in the art. A parabolic reflector to have any useful function, would have to be, as the expert on the other side, Mr. Beam, stated it would have to have its source of heat located at the focus of the parabola; and with the long element that is here shown, I cannot see how a parabola could possibly be effective, for the purpose of directing rays in any better shape than this cone does. After careful reading of the patent, I came to the conclusion that the inventor had in mind, rather, the form of the curve of these inverse flutes rather than substituting a parabolic form of the whole cone. These individual flutes might easily be curved parabolically in such a way that the focus of the parabola, or rather, the focus of the foci of the parabola of a single flute would be coincident with the center of the heat element; but I cannot conceive a parabola in the plane of a heat element as the substitution for this cone which would perform any of the functions of reflection aimed at by the patentee when he says, "You can direct the beam as you choose by changing the shape of the reflector." With such a long heat element, the divergence from

(Testimony of George J. Henry.)

the focus of any single parabola would be so great over most of the portions of the heat element that your emitting area would not be anywhere near a parallel beam; it would be widely divergent from it. I am very sure that the most accurate parabola that could be [67] constructed as a substitute for a curve—and I have in mind now such a parabola as has been presented here as made by the Westinghouse company—such a reflector as that, I am very sure, would get hot and make a divergent beam that would cross a dozen times, probably, in the parabola before it got out, and would make a very wide divergent beam. I am referring to the model made by the Westinghouse Company of the English Simplex patent, or any similar reflector made of parabolic to be this form of heat element and based on any teaching contained in the Simplex patent. The conical fluted type of reflector is the only one shown in the illustration.

Plaintiff then offered in evidence the device representing the English patent testified to by the witness, and the same was marked "Plaintiff's Exhibit 7."

I have examined and understand the Warner patent, No. 1,120,003, dated December 8, 1914, Defendant's Exhibit 4. The device which you now hand me I believe to be the same device as described in this Warner patent. The striking feature of this device when you look at it from the front is the heat element, and its location with respect to the other parts. It is annular in shape and occupies

(Testimony of George J. Henry.)

a large portion of the entire device. The large cage covering it is very prominent in appearance. Of course, if the device were lighted up the incandescent lamp will also be a noticeable feature. There is an incandescent lamp in it, and the lamp is also shown in the model which you have handed me and concerning which I have testified.

Plaintiff then offered in evidence the said device or model referred to by the witness as representative of the Warner patent, and the same was marked Plaintiff's Exhibit 8.

(Witness continuing:) The device which has been put in evidence by defendant and marked Defendant's Exhibit "L" is representative of this Warner patent. I do not consider it a fair representation thereof. It has a very materially [68] different appearance. The same elements are present, and probably function the same way, but they are materially different in size of proportion and respect to each other. The heat element is located much deeper in the reflector than in the first one you handed me. It is also much smaller in cross section relatively, resulting in a very much less prominent appearance. It is the dominating element in the appearance in the patent drawing and also in the heater which you have handed me (Plaintiff's Exhibit 8) as distinguished from Defendant's Exhibit "L."

Referring further to the English Simplex patent, I note that it does not very prominently show in its illustration a guard wire over the front. It

(Testimony of George J. Henry.)

states that it should be fitted with coarse wire mesh or the like, but that does not appear in the illustration, it is not shown in the illustration.

Referring to a model which has been put in evidence by the defendant marked "Defendant's Exhibit 'J,'" as illustrative of the Simplex English patent, I do not consider that the model correctly represents the patent, although it might easily be a construction which one skilled in the art, looking at the Simplex picture and reading the Simplex description, might arrive at a variation. It is materially different from the drawings in the Simplex patent. The heat element is relatively shorter. The reflector is curved and smooth on its inner surface instead of fluted, and is provided with a special form of wire guard, whereas no form of wire guard is illustrated in the Simplex patent.

Cross-examination of G. J. HENRY.

On cross-examination the witness testified as follows: I am a practicing attorney as well as engineer, and at present am associated with Mr. Miller, counsel for plaintiff, [69] in connection with some work. I have stated that the drawing of the Simplex Conduits patent, No. 19,971 of 1913 shows no guard for the heater. I consider that the part marked "H" shown in Figs. 2 and 3 of sheet 1 of the drawing, also in Fig. 7, to be the frame work on which the patentee intends to stretch a wire mesh, which wire mesh is mentioned in the specification. The specification does say on page 3, line 21, "The end of the reflector is fitted with a guard H, to pro-

(Testimony of George J. Henry.)

tect the heating element." Now, if he intended the element H of Figs. 2, 3 and 7 to be the guard for the heating element, then I am at a loss to interpret some of his drawings. Take, for example, Fig. 7: This Figure 7 is "A view similar to Figure 3 of a modification with three heaters." He shows the lines H commencing apparently at the small end of the cone and entirely disconnected in any way from the outer ring; consequently I cannot see, judging from that figure alone, how that can be a guard across the front of the reflector, although it might be a ring inside and around the three elements of Fig. 8. The same testimony applies to the showing in Figure 3. The guard seems to be away inside of the reflector. I find nothing in any of the other figures to clear up such a hiatus. Figure 2 shows the guard H extending apparently all the way from the outer ring and as such it would be a three-wire guard extended across the front of the heater with a circular opening at the center; but it would so radically diverge from the wire mesh mentioned in the body of the specifications, that I am inclined to think he did not mean it as a guard across the front of the heater in the sense of the wire mesh shown, for example, in the model Plaintiff's Exhibit 7. I have criticised the portion of the patent specification relative to the parabolic curvature reflector as not adapted for use with the heater element here shown, [70] on account of the length of the heater element. It has not occurred to me that if the reflector were made more

(Testimony of George J. Henry.)

shallow the heater element would naturally be made shorter to correspond. Quite the contrary. With the type of parabolic reflector shown in Defendant's Exhibit "J," the heat element would be shorter rather than longer. Generally speaking, the shorter the distance between the focal point and the directrix in two parabolas, the less will be the permissible area of volume within which your heat should be generated. In this case of Defendant's Exhibit "J," we have rather an acute parabola, one in which the focus is very deep seated, nearly to the bottom. The result would be that your heat element in such parabolic reflector would be very much smaller proportionately than if the focus were much further forward; in other words, if the parabola were flatter. I take it that it is well within the scope of the presumed knowledge of the designer to proportion these parts to suit the conditions imposed by the laws of heat generation and radiation. If you have any definite set or parts to work to, he could undoubtedly proportion a curve that would be well suited to those particular parts, but my testimony was in reference to a long heat element. In this particular Defendant's Exhibit "J" type of parabola, it is a fact that the heat radiating from the outer portions—I think I am safe in saying that nine-tenths of the outer portions of the heat units upon being received upon the wires by the reflector will be projected inward into the reflector instead of outward. [71]

It was here stipulated that the following testimony given by the witnesses, George J. Henry and Edmund N. Brown, taken in Case No. 493, be copied into the case above with the same force and effect as though originally taken therein, and the said testimony of the said witnesses is as follows:

Testimony of George J. Henry, for Plaintiff (In Case No. 493).

In rebuttal, plaintiff called as a witness GEORGE J. HENRY, who gave the following testimony:

Referring to Defendant's Exhibits "A," "B," "C" and "D," and comparing them with the mechanical structure shown in the patent in suit as to similarities or differences, speaking generally as to all of these exhibits to which you have referred me, they are noticeably distinguished from the Brown mechanical patent in suit, in that the reflector is not a concavo-convex reflector in any sense of the word, as contemplated in the Brown patent. They are all devoid of an annular member extending outwardly from the margin of the reflector. They are all devoid of a focal point or focal area or volume about which the heat element is disposed. For the first and second reasons which I have given, they fail to deliver a radiant beam or a beam of radiant energy which would be sensed as heat by a person in the range of such a beam. On account of the shape of the reflectors in all five of these exhibits, the reflected rays, because, of course, there will be reflected rays

(Testimony of George J. Henry.)

of radiant energy, will criss-cross in various directions, producing an hiatus of impacting beams or rays—not beams—of different intensity at various points, and none of them sufficiently intense to make the heater useful as a beam heater to a body located at any material distance from the heater, itself. With the exception of exhibit 6, they are provided with heat elements, and exhibit 6 is the dish-shaped back only of the heater which was intended to be furnished also with a heat element; the reflector or back, [72] for, really, it is more probably a backing or housing than a reflector in all of these five heaters, as rather a protective shield than a protector. It, of course, does function to some extent as a reflector in exactly the same way that a stone wall functions as a reflector of radiant energy. If one is passing by a stone wall on which bright sunshine is impinging, you at once detect some reflected warmth therefrom, or at least you detect warmth generated by radiant energy reflected therefrom. In this case there is a very large area reflecting rays of radiant energy in all directions, and if you are close to such a surface you will, of course, receive enough of these upon the sensory nerves of the body to experience the sensation of heat; in the same way, if you hold your hand close to one of these heaters in the exhibits now under discussion, you will experience slightly more heat in the front of the heater than you will in the back. Some of this is due to reflection of radiant energy from the interior of the casing, or reflector,

(Testimony of George J. Henry.)

but the form of the reflector in each of these exhibits is such itself, as reflected from different portions of the reflectors themselves, will be very divergent in the aggregate, and in the case of any individual point or ray, it will be in criss-cross, and will, in turn, criss-cross other rays in a way to produce a very highly inefficient radiant emanation. This radiant emanation cannot be called a beam in the sense of that which is producible and is produced by the reflector of the Brown patent, with the heating element arranged about a focus or about an axis on which several foci will lie. In either of the last two instances employing a concavo-convex reflector, that is, one which is curved at every point in such a way that the curve is expressable by a mathematical formula, as is that of a circle, or any of the conic sections and certain other curves; in the case of such a concavo-convex reflector [73] with a heat source or unit mounted about its foci, the emanating rays will be conserved in the shape or form of a beam, whose cross-section will be more or less circular, according to the disposition of the heat unit within the reflector, and the shape of the reflector surface. Such a reflector beam is generated in and emanates from the Brown heater as constructed in accordance with the patent in suit, and likewise from the heater of the defendant's construction. In the reflector of Plaintiff's Exhibit 6, the greater portion of the reflector, or, at least, that which receives the greater portion of the rays emanating from the heat unit, and which,

(Testimony of George J. Henry.)

to be efficient, should be reflected as a beam, is in reality a flat surface. The same applies to the other exhibits, with the exception of Defendant's Exhibit "C," in which there is likewise a flat surface, but not of quite so great proportions. This flat surface will reflect radiant rays in practically every direction. These exhibits are of nickel or of nickeled surface, and as such are not nearly as efficient in the reflection of the radiant heat rays. They are all devoid of a cool edge removed from the range of the impact of the radiant rays. They all, being inefficient reflectors, will become quite hot, and the protection of such a rim in their case would be even more necessary than in larger reflectors and of more efficient shape. In the case of exhibit "D," there are two heat elements manifestly out of any central axis, and the construction of such a device as this clearly indicates a total avoidance or lack of appreciation of any reflector rays in which there could possibly be conserving in the form of a beam. I have made tests with heaters of the kind illustrated by these exhibits which are before me with a view of ascertaining their efficiency as compared with the efficiency of the Brown heater. With some of them I found they were grossly [74] inefficient as regards the production of a radiant beam. Radiant beam would be such a beam as would appear of light, for example, in coming through a hole in a roof into a darkened room; sun rays would create a radiant beam; the radiant beam is made up of, presumably,

(Testimony of George J. Henry.)

waves in the ether traveling in perfectly straight lines and at an enormous rate of speed, the same as light; light being one of the manifestations of radiant energy, and of a certain specific wave length. Other wave lengths of radiant energy which do not give us the sensation of light are observable in other devices, or may be made manifest to us by other devices, as for example, that which produces heat. We cannot see the radiant energy which produces heat, but our sensory nerves detect the impact of the waves. For all purposes of ordinary comparison, it is well to think of them just as though they were like rays; that is, they travel in a straight line, they travel at the same rate of speed; they are subject to substantially the laws of optics in that they may be reflected from certain surfaces more than other surfaces. Polished copper is a highly efficient surface for the reflection of radiant heat waves, meaning by that radiant heat energy having a certain range of wave lengths.

Q. Does the Brown heater in suit produce a beam? A. It does, decidedly so.

Q. Is there any utility or advantage in producing that kind of a beam?

A. A very great utility, in that a relatively small consumption of electrical energy may be transformed into heat waves and concentrated at a particular point without making necessary the warming of the entire room, for example. With the Brown heater we have a heater that will keep you comfortably warm in a perfectly cold room;

(Testimony of George J. Henry.)

you can keep all the windows open and still retain a very high degree of efficiency [75] of warmth, attained from a very small consumption of electrical energy. It is quite analogous in receiving qualities, and as different from most forms of heaters to an experience that one would have in walking across a glacier on a very warm summer day, or out on the snow on a very warm day; you feel a decided sensation of warmth, so hot at times you may have to take your coat off, and still the thermometer is at a very low temperature. The reason is that you are receiving a very intense beam of radiant energy from the snow. The same will apply to the Brown heater. A thermometer in a room will show almost no increase of temperature, and yet you can get into a hot perspiration by being within the beam of one of the heaters in a very short space of time; the room itself is not warm, the air is not warm, the other objects are not warm; the warmth is merely the sensation you get from the radiant beam on your body from the reflector of the Brown heater, and, as such, it is the only type of heater that is in this case which will produce the beam. The Westinghouse I consider the same identical type. These other heaters do not produce a beam of heat.

Q. Is there any exhibit in evidence here of the prior art which does produce that kind of a beam?

A. No, there is not, precisely.

Q. Do you consider the production of a beam such as that as being new in Brown so far as the

(Testimony of George J. Henry.)

evidence here shows? A. It certainly was.

Q. That is really the essence of his discovery, then, is it? A. I consider it so.

The Shoenberg patent, which is Defendant's Exhibit "I," does not show anything with reference to this issue here, any further than what is shown by these five exhibits which I have referred to, and my answer in regard to the five exhibits applies also [76] to the Shoenberg patent, No. 1,109,551.

The Morse device (Defendant's Exhibit "F") is one for the purpose of concentrating heat upon a certain portion of the body for therapeutical use, primarily, and is a heat container rather than a heat reflector, the idea of the patent being clearly expressed as intending to conserve the heat within the bowl-shaped member No. 1.

The COURT.—Does that throw a beam, or does it not?

A. I would consider that, if utilized on standards, it would go a little closer to throwing a beam than would the nickel-plated devices and the Shoenberg dish form to which I have testified, but the source of heat is very clearly and materially removed from the focus, and the edges of the reflector are extended over in such a way that most of the beam thrown from the back of the reflector would be interfered with by the side before it ever left the reflector, with the result that you would have a very inefficient reflection of heat rays, and a very material divergence as soon as you got away from the front edge. The purpose of the inventor was

(Testimony of George J. Henry.)

to concentrate his heat along the line corresponding with the flange, numeral 2, and it might be efficient for that, but would not be efficient as a radiant reflector for producing a beam. Defendant's Exhibit "G," Geiger patent, in connection with the model which has been put in evidence as an exemplification of it and marked Defendant's Exhibit "M," is very decidedly different from anything shown in the Brown patent, in that the reflection from that would be spread over a very large surface and of a highly irregular nature. The rays of radiant energy would criss-cross and diverge to a degree exactly the contrary of that desired in a beam heater. It is just the antithesis of a beam heater. Referring to the English patent which has been referred to as the Simplex patent, No. 19,971, a reflector [77] of a form corresponding with the easing or outer sheet of the reflector of this patent would not throw a beam in any sense of the word. Most of the heat rays will be reflected back and forth within the heater device, itself, resulting in heating up the reflector, rather than in securing reflection. The few rays that will be thrown outwardly will be criss-crossed in all directions, doing just the contrary of a beam. The shape of the reflector, the flutes that are in it, its long heat element, and its conical lines, would produce that criss-cross. Referring to the Warner patent, Defendant's Exhibit "H," the same applies to this heater; it will not produce a beam in the sense that I have been employing this term, and as contemplated in

(Testimony of George J. Henry.)

the Brown heater. The object of this and other heaters in the art seems to have been the production of warm air, with the idea that the transference of warm air by convection will do the desired heating. The Brown heater is not intended to produce warm air, it being distinctly a radiant heater as distinguished from the type of heater indicated in the Warner patent. For example, Warner says very clearly, commencing at line 52, page 1 of his specification, "Substantially all the surface of the resistance wire is open to contact with the air, producing a structure in which the heating effect has the greatest possible efficiency, with the result that the device, as a whole, though in a small and readily portable form, is capable of readily heating large volumes of air, making it particularly useful for the heating of rooms."

The manner in which the annulus carrying the resistance is formed and its location, materially away from any focal range, clearly indicates the intent of the patentee was not the employment of a reflecting surface to produce a beam, nor did he produce a reflecting surface, a heat unit which would produce a beam, but, rather, a container or circulating structure [78] about which air would circulate and be heated.

Referring to the Porter patent, Defendant's Exhibit "N," this is an electric fan in which, by the employment of resistance embedded in or upon the blades of the fan the inventor contemplated the warming of air which would pass over the fan

(Testimony of George J. Henry.)

blades when the fan was in operation; the air passing over the blade would become warm and would be thrown out, and by convection would warm objects on which the so heated air would subsequently impinge. It is not a beam heater in the same sense at all as Brown, nor is it a beam heater in any sense.

Q. Referring to this Westinghouse heater, Plaintiff's Exhibit 5, please state whether or not the curved-over outer edge of the reflector that is there shown can be properly termed in mechanics as a bead?

A. I do not so consider it, and in mechanics I would consider the proper term to apply would be a flange. A bead is ordinarily where the metal is turned over on itself, and in intimate contact, without air space between, and, moreover, forms a complete circle or substantially a complete circle. This is a flange in every sense of the word in mechanics, and in the sense of the Brown patent.

Cross-examination.

Mr. CARR.—Q. What is the turned-over edge of the part marked "1" in the drawing of the patent in suit?

A. That is a flange. It is not the entire flange contemplated in the patent, but it is in mechanics a flanged-edge on the reflector 1.

The COURT.—Q. Suppose it were not turned over, what, then, would it be?

A. Do you mean if it were at right angles to the axis?

(Testimony of George J. Henry.)

Q. No. If this were not turned over at all, it would [79] be a flange, would it not?

A. Yes, it would, in mechanics.

Q. Being turned over, what is the turned-over part called?

A. If I were describing that to a workman in metal, I would call it a turned-over flange. In order to describe it fully to him he would have to be given a sketch; whereas, if he were making the reflectors and I instructed him to put a bead on the outer edge, I am sure he would know at once what I meant and would produce a bead on there. Flanges are of various forms, depending on the purpose for which they are intended.

Mr. CARR.—Q. In view of your criticism of what is shown in the Shoenberg patent, No. 1,109,-551, please note this language appearing on lines 48 to 53, page 1, specifications.

"The reflector consists preferably of a highly-polished metal shell 1, which is somewhat hemispherical or dome-shaped, and serves to reflect the heat waves received from the heater and direct them outwardly from its inner concave surface." To your mind, what is the significance of that?

A. That portion of the reflector is of concave form, and does reflect rays outwardly. The edges of the reflectors in the several nickel-plated exhibits, "A" to "D," and 6, to which I previously testified, all answer that description. That is, a portion of the reflector is of a curved form; that curve does reflect rays outward, but it does not

(Testimony of George J. Henry.)

follow that those rays take the form of a beam, which are collected together in the form of a beam; in fact, they are not in any of these exhibits, or in that patent.

Q. Is there any criss-cross and divergence of heat waves in the operation of the devices of the patent in suit?

A. There is to a small degree, a very small degree compared with the previous art. There is some direction outwardly in the previous art, but to a very small degree. The beam is formed very perfectly in the Brown heater, the device of the [80] plaintiff, so much more perfectly than it is in any of the heaters of the previous art that there is no comparison as regards the utility of that beam form of heater. I know that from very close investigation in experimental work on a great many different forms. I have not made comparative tests of all the heaters which I have been criticising. I have made them of a great many different forms of reflectors. I have made a very close study of the reflection of a radiant energy from a heat unit on various surfaces and under varying conditions, but not with the specific devices I have referred to.

Q. You have mentioned that fact that the devices appearing here as Defendant's Exhibits "A," "B," "C" and "D" have nickel plates; what significance do you attach to that?

A. Two very important points—the first one is very important; I do not consider it as efficient a surface for the reflection of radiant energy. The

(Testimony of George J. Henry.)

second is the question of appearance. I consider that the copper has a very superior appearance to the nickel. It suggests warmth.

Q. So far as the matter of efficiency is concerned, your opinion is based upon test, or theory?

A. Largely theory. I have made no tests on the nickel surfaces that warrant me in saying that.

Q. In the matter of the Plexism heater, a sample of which has been called particularly to your attention during your direct examination, I desire to call your attention to Defendant's Exhibit 8 attached to and forming a part of a deposition on file in this suit, in which appears an illustrative diagram, and the following statement:

"When on circuit the appearance is that of a glowing circle of fire which produces a most cheerful effect of heat rays being thrown forward in a more or less parallel beam in any direction, according to the angle at which the reflector is swiveled." [81]

In view of that, are you still of the opinion that the patent in suit is the first disclosure of the beam type of heater?

A. I certainly am. This reflector that you have referred me to, and particularly the diagram showing the arrows indicating supposititious divergent rays, I will say that in all probability those specific rays will be thrown out from that form of reflector, and that form of heater, but that is about all of the rays that will be thrown out, a very, very small percentage of the total heat. The rays that come from every other point on that long heat-gener-

(Testimony of George J. Henry.)

ating unit will be thrown at all kinds of angles, every possible angle. So that the actual rays which will emanate from there in an axial direction are but a small percentage of the total that I am convinced more than ever that that form of reflector would be inefficient for the production of a beam. There is no question but that the man wanted to produce a beam, but he did not do it in this form of reflector, or in that form of heater. He would have to get up pretty close to that to feel the radiant energy. That is my opinion, with a given quantity of electrical energy expended, you will have to get up pretty close to that, with a Shoenberg form of heater, to feel the radiant beam. It will probably generate as much heat—there is no question about that, as Mr. Bean pointed out, but that heat will not be directed in the form of a beam with a sufficient efficiency to warrant calling that form of heater a beam heater. It will get hot itself, it will heat the air around it locally a little bit, and heat will be extending that way; but in the Brown form of heater, the idea was and the result was that a larger percentage of that heat is gathered and thrown out in the form of a beam as radiant energy. This diagram which you have handed me is highly misleading; it is purely an advertising stunt; it is a salesman's idea of how to present a thing to the public and get them [82] to buy, and I have no doubt he put it over. But it is as misleading as a diagram could be as regards the rays that emanate from the inside of that form of heater in action.

(Testimony of George J. Henry.)

Q. That is, you would put it in the same class with the Majestic heaters that preceded the No. 1?

A. Generally speaking, as regards inefficiency in the production of a radiant beam, yes. The man who made this diagram undoubtedly drew his lines backward; he started out with straight line indicating an emanating beam which he wanted to obtain; he came back on to one spot of his reflector; then he made his angle of incidence equal to his angle of reflection, and found that would fall on the heat element at a certain spot, and he argues that that is the spot that reflects that beam. Well, it does. But what happens to all of the reflected rays from the other spots on that heat element; it is a great, long heat element, and every point on that heat element is impinging rays on the same identical spot on the reflector, and they are going in every possible direction. It shows a total misconception of the construction of a reflector and a heat unit to produce a radiant beam.

Q. Your contention then is, as I understand it, that the Brown No. 7 heater embodies a concavo-convex reflector, and that nothing prior to that did?

A. No, I didn't say that at all. My answer was very clear, that it embodied a concavo-convex reflector with a heat-generating unit about the focus or focal range of that reflector, and that as such I consider it the first in the art to produce an efficient radiant beam.

Q. When you say "about," you mean projecting through, do you?

(Testimony of George J. Henry.)

A. I meant just exactly what I said, "around." The focus falling within the heat unit is what I meant.

The COURT.—Q. Would that be true of the Warner patent?

A. No, it would not be true of the Warner at all.
[83]

Q. Why isn't the heating element around the focus there?

A. I say the focus falling within the heating element. In the Brown patent we have a heating element like this, the focal point falls within that range.

Q. I was trying to get the sense in which you used the word "around" or "within."

A. Within the range of heat generation. The heat generation is off in here. It is a circle in this case.

Q. If that circle were closed, then it would fall within your definition?

A. If it were all like this, yes. You mean if all this in here were closed up and all generating heat?

Q. Yes. A. That would be true.

Mr. CARR.—Q. Is that true of the defendant's heater, in your opinion? A. Is what true?

Q. I mean, is it true that the focus of the reflector falls within the heat element?

A. It does. The focal range does for a radiant beam. What you probably have in mind is this, Does the center of the circle which forms the reflector fall within the heat unit?

(Testimony of George J. Henry.)

Q. That is the focus, isn't it?

A. No, it is not, in any sense of the word.

The COURT.—Q. I want to ask one question. Should I desire to experiment with these various devices by the use of light, as I understand you, the laws of light are substantially the same as the laws of this radiant heat energy?

A. As regards reflection, yes.

Q. In other words, if they would throw a beam of light, they would throw a beam of heat energy.

A. Yes; in that case your light source should be the same size and position as the heat source. If we think of these utilizing light in place of the heat unit, it is true that in every one of them you will get light reflections from your reflector. In the Plexism, you [84] would get a decided light reflection, but if you will get off materially to one side you will also get your light reflections, by which is indicated that heat beams will also come very much to one side. If you take the form of the Brown and of the Westinghouse and stand in front of it with a source of light here, and the heat unit, by itself, will produce a source of light for you—it is the way to try them out; you will see the whole flowing bowl in each case at a material distance away in line with the beam, in line with the axis; if you get a little bit to one side that disappears very rapidly, showing the light rays, and, therefore, the heat rays; they will diminish very rapidly as you get off to one side. In the case of the Brown, if you will set that 9 feet from you and then move at definite points at

(Testimony of George J. Henry.)

right angles to that axis 1, 2, 3, 4 and 5, feet from the center, you will find that your heat beam is growing slightly weaker; but at a distance of 2, 3, 4 and 5 feet you will find that it is over 100 per cent more efficient than the Westinghouse, due to the flattening out of the beam. At the center, at points of 1 and 2 feet from the axis, you will find that the Westinghouse will be more intense; it will fall off more rapidly, due to the differing positions of the heat unit. But in both cases you will get a decided heat beam 10 feet in diameter, or 10 feet wide, I will say, at a distance of 9 feet from the unit.

Q. Suppose you were to put an ordinary light bulb in one of the Shoenberg patent devices at the point where the heat element is now installed, would it or would it not show a distinct spot of light upon the wire, say 10 or 15 feet away?

A. It would not.

Q. But it would in the No. 7 or the Westinghouse?

A. It would. That would be a very nice way to test it.

Q. Why couldn't you read the reflector in the Majestic device, No. 7 into the patent claims of the Shoenberg patent, where [85] it says a hemispheric dome-shaped reflector; that is, suppose you put aside these separate devices and just took the patent alone, I mean. I understand that counsel for the defendant read those terms from the patent.

A. The only claim, your Honor, that mentions that is claim 6:

(Testimony of George J. Henry.)

"A dome-like reflector, having inner and outer members held in spaced relation by providing a chamber or channel between—" and so on.

I can only say that I don't believe that the patentee had in mind the use of a reflector with a heat element substantially at or around the focal point of any particular curve which would produce a radiant beam. He does not speak of a radiant beam. He has in mind the throwing out of radiant rays.

Q. But it does not say so in the patent in suit?

A. Not as a radiant beam. He spoke of it as radiant type of heater.

Q. What I am trying to get at is your view as to whether or not you could claim this particular structure now in suit, which is No. 7, under the Shoenberg patent? A. I doubt it.

Q. Why not?

A. Because I don't think the teaching is sufficient in the Shoenberg patent.

Q. Is this hemispheric, or dome-like, or not?

A. You can employ a hemispherical form, or dome-like form, if you place your element at the proper point in it to secure thereby a beam; but there is no suggestion in the Shoenberg patent of the recognition of any heat center or focus.

Q. Not in the Shoenberg patent?

A. No, sir; I don't find any.

The COURT.—What is there in the patent in suit?

(Testimony of George J. Henry.)

Mr. MILLER.—(Line 48, page 1, reading from the Shoenberg patent): “The reflector consists preferably of a highly-polished metal shell, 1, which is somewhat hemispherical or dome-shaped.” [86]

The WITNESS.—The word in these “somewhat” is thoroughly consistent with his drawing, which shows only part of the reflector made curved and the back portion of it flat.

The COURT.—Q. In the patent in suit, what is there to indicate the location of the heating element?

A. It is mentioned in the claims, themselves, in one place. I will find it in just a moment. Take claim 1:

“An electric heater, comprising a concavo-convex reflector, a heating unit supported at substantially the focus of said reflector.”

Line 33: “In spaced relation with the reflector, 1, and preferably at the focus of its curved surface.”

The whole patent is based upon the theory of using a heat-emanating source at the focus of a curved reflector for the purpose of producing a radiant type of heater. For example, it says at line 9: “This invention relates to electric heaters in which the heat waves”—the use of the word “waves” is significant of radiation,—“are generated by a resistance coil or heating unit, and are then reflected from a highly polished surface.”

It was old in the art to employ reflectors for light,

(Testimony of Edmund N. Brown.)

locomotive headlights, and things of that nature, but no one had used it for heat as a radiant beam. That is my belief.

Testimony of Edmund N. Brown, for Plaintiff (In Case No. 493.)

EDMUND N. BROWN was then called by plaintiff in rebuttal and testified as follows:

After we put out our No. 7 on the market, other manufacturers put upon the market styles of electric heaters which they had not been marketing previously to our No. 7 appearing. The first of these was the Hotpoint, a sample of which was marked "Plaintiff's Exhibit No. 3." After our No. 7 appeared, the defendant put on the market a heater represented [87] by the Westinghouse heater here in evidence. Other manufacturers put heaters on the market. I herewith produce the heaters themselves. We have a laboratory full of them down town. Here is one put out by the Simplex Heating Company, the same being sold by Holbrook, Merrill & Stetson as jobbers in San Francisco. They appeared in the fall of 1918 after our No. 7 had been put on the market. The firm of Landers, Frary & Clark also put out a heater of that type, and I herewith produce a sample thereof. The Rutenber Electric & Mfg. Co. also put out a heater of that type, and I herewith produce one. The Estate Stove Company of Hamilton, Ohio, also put out a heater of that type and I herewith produce a sample of the same. The General Electric, which is

(Testimony of Edmund N. Brown.)

now amalgamated with the Hotpoint and Hughes Company under the Edison Electric Appliance Company also put out a heater of that type. The Hotpoint Company was afterwards absorbed by the Edison Company. The General Electric put out one type of heater and the Hughes Company another type, and the Hotpoint another type. Plaintiff's Exhibit No. 4 was put out by the Hotpoint Company.

Cross-examination of Witness BROWN.

The manufacturers whose names I have just mentioned advertised their product pretty lively. The Hotpoint Company was a pretty big advertiser in everything. They advertised very liberally. They advertised in the Saturday Evening Post and some National Magazines; we advertised in the newspapers, and through circular matter, and at Expositions, Fairs, etc. Since these suits have been started, Landers, Frary & Clark have practically taken their heaters off the market so I have been informed by the jobbers, and their advertising has practically ceased. I don't think the Rutenber people are doing any advertising to speak of. I have not seen as much advertising by the Estate Stove Co. this year as I formerly did.

JOHN H. MILLER,
Atty. for Plff.

[Endorsed]: Filed Dec. 17, 1920. W. B. Maling,
Clerk. By J. A. Schaertzer, Deputy Clerk. [88]

In the Southern Division of the United States District Court for the Northern District of California, Second Division.

No. 544.

MAJESTIC ELECTRIC DEVELOPMENT COMPANY,

Plaintiff,

vs.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY,

Defendant.

Plaintiff's Petition for an Order Allowing Appeal from Order and Decree of October 4, 1920, and from the Final Decree of November 1, 1920.

Plaintiff in the above-entitled case feeling itself aggrieved by the order and decree heretofore made and entered in the minutes of the Court on October 4, 1920, whereby it was ordered that the bill of complaint be dismissed, and that a decree be signed, filed and entered accordingly, and feeling itself aggrieved by the final decree heretofore made and entered in the case on November 1, 1920, wherein and whereby it was ordered, adjudged and decreed that the plaintiff's bill of complaint be dismissed with costs to the defendant, which said decree was signed by Hon. Robert S. Bean, United States District Judge.

Comes now into court by its counsel and prays the Court for an order allowing it to prosecute an appeal from the said order and decree of October

4, 1920, and from said final decree of November 1, 1920, to the Honorable United States Circuit Court of Appeals for the Ninth Circuit under and pursuant [89] to the laws of the United States in that behalf made and provided, and that an order be made fixing the amount of security of costs and damages which said plaintiff shall give and furnish on said appeal, and that upon said security being given, all further proceedings in this court and the issuance of execution be suspended and stayed until the final disposition of said appeal by the said United States Circuit Court of Appeals for the Ninth Circuit.

And your petitioner will ever pray, etc.

JOHN H. MILLER.

Attorney for Plaintiff.

Dated: November 17, 1920. [90]

In the Southern Division of the United States District Court for the Northern District of California, Second Division.

No. 544.

MAJESTIC ELECTRIC DEVELOPMENT COMPANY,

Plaintiff,

vs.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY,

Defendant.

Order Allowing Appeal of Plaintiff from Order and Decree of October 4, 1920, and from the Final Decree of November 1, 1920.

Plaintiff in the above-entitled suit having filed its petition for an order allowing an appeal from the order and decree made and entered in the minutes of the Court on October 4, 1920, and from the final decree made and entered in the case on November 1, 1920, accompanied by an assignment of errors:

NOW, THEREFORE, on motion of John H. Miller, Esq., attorney for plaintiff, it is

ORDERED that the said petition be and the same is hereby granted, and the plaintiff is hereby allowed to take an appeal to the United States Circuit Court of Appeals for the Ninth Circuit, from the order and decree made and entered on the minutes of this court on October 4, 1920, whereby it was ordered that the bill of complaint be dismissed with costs to the defendant, and that a decree be signed, filed and entered accordingly, and also from the final decree made and entered in the above-entitled case on November 1, 1920, [91] wherein it was ordered, adjudged and decreed that the plaintiff's bill of complaint be dismissed with costs to the defendant.

And it further appearing that the plaintiff has prayed for a supersedeas and stay of execution of said decree pending said appeal.

IT IS ORDERED, ADJUDGED AND DECREED that the amount of security to be furnished

by the plaintiff for damages and costs be and the same is hereby fixed at the sum of five hundred (\$500.00) dollars, and that upon the plaintiff furnishing and giving and filing with the clerk of the court the aforesaid bond, for damages and costs on appeal, in the sum of five hundred (\$500.00) dollars, conditioned as required by law, all further proceedings in this court and the issuance of execution be and they are hereby suspended and stayed until the final determination of said appeal by the said United States Circuit Court of Appeals for the Ninth Circuit.

And it is further ORDERED, ADJUDGED AND DECREED that upon the giving of the bond aforesaid conditioned according to law, a certified transcript of the records and proceedings herein be forthwith transmitted to the said United States Circuit Court of Appeals for the Ninth Circuit.

Dated: Nov. 17, 1920.

(Sgd.) R. S. BEAN,
U. S. District Judge.

[Endorsed]: Filed Nov. 17, 1920. W. B. Maling,
Clerk. By J. A. Schaertzer, Deputy Clerk. [92]

In the Southern Division of the District Court of the United States, for the Northern District of California, Second Division.

No. 544.

MAJESTIC ELECTRIC DEVELOPMENT COMPANY,

Plaintiff,

vs.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY,

Defendant.

Plaintiff's Assignment of Errors on Appeal from Order and Decree Entered in the Minutes October 4, 1920, and Final Decree Made and Entered November 1, 1920.

Now comes plaintiff herein by its counsel and specifies and assigns the following as the errors on which it will rely upon its appeal to the United States Circuit Court of Appeals for the Ninth Circuit from the order and decree made and entered in the minutes of the court on October 4, 1920, whereby it was ordered that the bill herein be dismissed with costs to defendant, and that a decree be signed, filed and entered accordingly, and from the final decree made and entered in the above-entitled case on November 1, 1920, whereby it was ordered, adjudged and decreed that the bill of complaint be dismissed with costs to the defendant to be taxed, viz.:

1. Error of the Court in making and entering the order and decree of October 4, 1920, whereby it was ordered that the bill of complaint be dismissed, and that a decree be signed, filed and entered accordingly. [93]
2. Error of the Court in making and entering its final decree of November 1, 1920, wherein and whereby it was ordered, adjudged and decreed that the plaintiff's bill of complaint be dismissed with costs to the defendant to be taxed.
3. Error of the Court in ordering, adjudging and decreeing that the plaintiff's bill of complaint be dismissed.
4. Error of the Court in holding that the patent in suit does not extend to the supporting stand or pedestal.
5. Error of the Court in holding that the design of the patent in suit relates to the reflector and the protective devices viewed in connection with the attendant heater element.
6. Error of the Court in holding that the patent in suit was not infringed by the defendant's devices.
7. Error of the Court in holding that the defendant's devices are neither reproductions nor colorable imitations of the design patent in suit.
8. Error of the Court in holding that there are points of resemblance between the device of the patent in suit and the common telephone and electric fan.
9. Error of the Court in holding that there are two important differentiating features between the

design patent in suit and the design of the defendant.

10. Error of the Court in holding that the turned over edge of the defendant's reflector in so far as affects the appearance is wholly dissimilar to the broad annular flange of the patent in suit.

11. Error of the Court in holding that the broad annular flange is a conspicuous differentiating feature of the design patent in suit. [94]

12. Error of the Court in holding that upon the testimony of one of the plaintiff's witnesses who first observed the Westinghouse heater upon passing the show window where it was displayed, shows that the outstanding feature in appearance of plaintiff's device was the heater element.

13. Error of the Court in holding that the design of the patent in suit is entirely void of purely ornamental features either in form or drapery.

14. Error of the Court in holding that the design of the patent in suit is a nude utility.

15. Error of the Court in holding that the design of the patent in suit is a bare mechanism, no part or parts or lines of which can be dispensed with or substantially altered without impairing its utility.

16. Error of the Court in holding that one cannot under the cover of a design patent debar others from employing the mechanical means necessary to give effect to a known and useful mechanical principle, however pleasing to the eye such requisite mechanism may be.

17. Error of the Court in holding that unless limited to the precise form illustrated in the draw-

ing of the patent in suit, plaintiff's design is anticipated in prior patents.

18. Error of the Court in holding that unless the design of the patent in suit is limited to the precise form illustrated in the drawing, the design is without invention.

19. Error of the Court in holding that the design of the patent in suit is anticipated.

20. Error of the Court in holding that the design of the patent in suit is without invention.

21. Error of the Court in holding that the casting shown in plaintiff's patent is simply a reflector of the most [95] familiar type, old in the art, and without novelty either in configuration or feature.

22. Error of the Court in holding that the contrast between the design patent in suit and the design as actually manufactured by plaintiff under the Shoenberg patent is but the contrast of material, color and size, and not of form.

23. Error of the Court in holding that if prior designs manufactured by the plaintiff and the design of the patent in suit were both made of nickel or copper, there would be a similarity instead of a contrast between the two.

24. Error of the Court in holding that in the absence of contrasting color or size, there is a striking similarity in general appearance between the design of the patent in suit and the design previously manufactured by plaintiff under the Shoenberg patent.

25. Error of the Court in holding that the design of the patent in suit is shown and disclosed by the photograph of plaintiff's exposition exhibit.

26. Error of the Court in holding that the design of the patent in suit is almost identical with that shown in Fig. 1 of the English patent to Taylor, No. 102,070.

27. Error of the Court in considering or giving any effect whatever to the alleged English patent of Taylor, No. 102,070.

28. Error of the Court in holding that the alleged date of application for the alleged English patent to Taylor, No. 102,070, stated to be January 11, 1916, could be considered or have any effect in this case.

29. Error of the Court in holding that the alleged English patent to Taylor, No. 102,070, was applied for on January 11, 1916.

30. Error of the Court in holding that the alleged English patent to Taylor, No. 102,070, was issued November 15, 1916. [96]

31. Error of the Court in quoting from the alleged English patent of Taylor, No. 102,070.

32. Error of the Court in holding that the design in the patent in suit closely resembles the Warner device.

33. Error of the Court in holding that the design of the patent in suit closely resembles the parabolic "Simplex."

34. Error of the Court in holding that the design of the patent in suit closely resembles the "Ferranti Fires."

35. Error of the Court in holding that in the period of four or five years immediately preceding the patent in suit an unusual or widespread interest in the matter of electric heating had arisen.

36. Error of the Court in holding that the invention of the nichrome wire solved the problem of a dependable and efficient element.

37. Error of the Court in holding that the right to use the nichrome wire was involved in the litigation which was not finally concluded until about the time of the Brown patent in suit.

38. Error of the Court in holding that it was because of the invention of nichrome wire that heaters were put on the market in increasing numbers.

39. Error of the Court in holding that it was because of advertising and the arts of salesmanship that the desire for such heaters was greatly stimulated.

40. Error of the Court in holding that the plaintiff was to some extent the beneficiary of the activities of its competitors.

41. Error of the Court in holding that the attractiveness of the design of the patent in suit was due, not so much to slight changes in form as to increase in size and [97] more particularly in substitution of the warm copper bowl with suitable trimmings in place of the nickel type of heater.

42. Error of the Court in holding that the widespread use of the design of the patent in suit was due in part to changes in social and housing conditions or the rapidly growing tendency to use electrical energy for divers purposes in the home.

43. Error of the Court in holding that the widespread use of plaintiff's design cannot be attributed to a slight change in the contour of the reflector.

44. Error of the Court in holding that the widespread use of the design of the patent in suit was

due to the causes or any of them specified in the opinion of the Court.

45. Error of the Court in that its decree is not supported by the evidence.

46. Error of the Court in that its decision and decree is contrary to the evidence.

47. Error of the Court in its failure to give effect to the testimony produced by the plaintiff showing confusion in the trade, and deception of persons of ordinary intelligence taking the defendant's heater as and for the plaintiff's heater.

48. Error of the Court in failing to give effect to the testimony of the witness Labatt in respect of confusion in the trade and deception caused by defendant's heater.

49. Error of the Court in failing to give effect to the testimony of J. R. Hiller in respect of confusion in the trade and deception caused by the defendant's heater.

50. Error of the Court in failing to give effect to the testimony of G. L. Wentworth in respect of confusion in the trade and deception caused by the defendant's heater. [98]

51. Error of the Court in entering its order and decree in the minutes on October 4, 1920, through and by Honorable Maurice T. Dooling, the District Judge who was then presiding, whereas the case was tried by and before Frank S. Dietrich, U. S. District Judge of Idaho, and the written opinion in the case was rendered by him.

52. Error of the Court in making and entering its order and decree of October 4, 1920, through and by Honorable Maurice T. Dooling, District Judge

presiding, whereas the case was tried by and before Honorable Frank S. Dietrich, U. S. District Judge of Idaho, who had been specially designated to act as a trial judge for the Northern District of California only for the months of August and September, 1920, and such authority and commission expired on the last day of September, 1920.

53. Error of the Court in making and entering its decree of November 1, 1920, through Robert S. Bean, District Judge, whereas the case was tried by and before Honorable Frank S. Dietrich, United States Judge of Idaho, who had been designated and appointed to hold United States District Court for the Northern District of California during the months of August and September, 1920, only, and his authority and commission expired on the last day of September, 1920. [99]

NOW, THEREFORE, in order that the foregoing assignments of error may be and appear of record, the plaintiff presents the same to the Court and prays that the same may be filed and such disposition be made thereof as is in accordance with the laws of the United States in that behalf made and provided, and prays that said final decree be reversed, and that the District Court of the United States for the Northern District of California, Second Division, be directed to enter an interlocutory decree in favor of the plaintiff and against the defendant in the usual manner and form, adjudging and decreeing the validity and infringement of claim 1 of the patent in suit, and enjoining any further infringement thereof, and referring the

case to a Master in Chancery for an accounting of damages and profits. All of which we respectfully submit.

Dated: November 17, 1920.

JOHN H. MILLER,
Attorney for Plaintiff.

[Endorsed]: Filed Nov. 17, 1920. W. B. Maling,
Clerk. By J. A. Schaertzer, Deputy Clerk. [100]

In the Southern Division of the United States District Court for the Northern District of California, Second Division.

No. 544.

MAJESTIC ELECTRIC DEVELOPMENT COMPANY,

Plaintiff,

vs.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY,

Defendant.

Order Allowing Withdrawal of Original Exhibits.

Good cause appearing, on motion of John H. Miller, Esq., counsel for Majestic Electric Development Company, plaintiff in the above-entitled suit.

IT IS ORDERED that all of the original exhibits offered in evidence in the above-entitled cause may be withdrawn from the files of the above-entitled court and from the clerk thereof, and be by said clerk transmitted to the United States Circuit Court

of Appeals for the Ninth Circuit, as a part of the record on appeal of the plaintiff herein to said Circuit Court of Appeals, from the order and decree made and entered in the minutes on the fourth day of October, 1920, and the final decree made and entered on the first day of November, 1920, which said original exhibits are to be returned to the files of this Court upon the determination of said appeal by the said Circuit Court of Appeals.

Dated Nov. 23d, 1920.

(Sgd.) R. S. BEAN,
Judge U. S. District Court.

[Endorsed]: Filed Nov. 24, 1920. Walter B.
Maling, Clerk. [101]

In the Southern Division of the United States District Court for the Northern District of California, Second Division.

No. 544.

MAJESTIC ELECTRIC DEVELOPMENT COMPANY,

Plaintiff,

vs.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY,

Defendant.

Bond on Appeal.

KNOW ALL MEN BY THESE PRESENTS:
That American Surety Company of New York, a

corporation organized and existing under and by virtue of the laws of the State of New York and duly licensed to transact a suretyship business in the State of California, is held and firmly bound in the penal sum of Five Hundred Dollars (\$500.00) to be paid to the Westinghouse Electric & Manufacturing Company, defendant, its successors or assigns, for which payment, well and truly to be made, the American Surety Company of New York binds itself, its successors and assigns firmly by these presents.

The condition of the foregoing obligation is such that,

WHEREAS the Majestic Electric Development Company, plaintiff in the above-entitled suit, has taken or is about to take an appeal to the United States Circuit Court of Appeals for the Ninth Circuit to reverse the order and decree made and entered on October 4, 1920, and the final decree made and entered on November 1, 1920, by the District Court of the United States [102] for the Northern District of California, Second Division, in the above-entitled suit, whereby plaintiff's bill of complaint was dismissed with costs to defendant.

NOW, THEREFORE, the conditions of the foregoing obligation is such that if the said Majestic Electric Development Company shall prosecute its said appeal to effect and shall answer all damages and costs, if it shall fail to make its plea good, then this obligation shall become void; otherwise to remain in full force and effect.

Dated at San Francisco, California, November
17th, 1920.

AMERICAN SURETY COMPANY OF
NEW YORK.

By D. ELMER DYER,
Resident Vice-president.

[Seal]

Attest: E. C. MILLER,
Resident Asst. Secy.

Approved Nov. 19, 1920.

R. S. BEAN,
Judge.

[Endorsed]: Filed Nov. 19, 1920. W. B. Maling,
Clerk. By J. A. Schaertzer, Deputy Clerk. [103]

(Title of Court and Cause.)

Praecipe for Transcript of Record.

To the Clerk of the United States District Court:

Please prepare transcript of record on appeal
from the final decree in the above-entitled suit, and
incorporate therein the following, viz.:

1. Bill of complaint.
2. Final amended answer.
3. Order designating Judge Dietrich to hold court
in the Northern District of California.
4. Opinion of Judge Dietrich.
5. Minute order of October 4, 1920.
6. Final decree of November 1, 1920.
7. Statement of evidence.
8. Petition for order allowing appeal.
9. Assignment of errors.

10. Order allowing appeal.
11. Order allowing withdrawal of exhibits.
12. Bond on appeal.
13. Citation.

JOHN H. MILLER,
Attorney for Plaintiff.

Dated November 23d, 1920.

Service of the within praecipe for transcript on
appeal admitted this 23 day of November, A. D.
1920.

D. L. LEVY,
W. SHELTON,
Attorneys for Defendant.

[Endorsed]: Filed Nov. 23, 1920. W. B. Maling,
Clerk. By J. A. Schaertzer, Deputy Clerk. [104]

In the Southern Division of the United States Dis-
trict Court, in and for the Northern District of
California, Second Division.

No. 544.

MAJESTIC ELECTRIC DEVELOPMENT COM-
PANY,

Plaintiff,

vs.

WESTINGHOUSE ELECTRIC & MANUFAC-
TURING COMPANY,

Defendant.

**Certificate of Clerk U. S. District Court to Transcript
of Record.**

I, Walter B. Maling, Clerk of the District Court of the United States, in and for the Northern District of California, do hereby certify the foregoing one hundred four (104) pages, numbered from 1 to 104, inclusive, to be full, true and correct copies of the records and proceedings as enumerated in the praecipe for transcript of record, as the same remain on file and of record in the above-entitled cause, and that the same constitute the record on appeal to the United States Circuit Court of Appeals for the Ninth Circuit.

I further certify that the cost of the foregoing transcript of record is \$45.95; that said amount was paid by John H. Miller, Esq., attorney for plaintiff; and that the original citation issued herein is hereunto annexed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said District Court this 29th day of December, A. D. 1920.

[Seal] WALTER B. MALING,
Clerk United States District Court for the Northern District of California. [105]

Citation.

UNITED STATES OF AMERICA,—ss.

The President of the United States, to Westinghouse Electric & Manufacturing Company,
GREETING:

You are hereby cited and admonished to be and appear at a United States Circuit Court of Appeals for the Ninth Circuit, to be holden at the city of San Francisco, in the State of California, within thirty days from the date hereof, pursuant to an order allowing an appeal, of record in the clerk's office of the United States District Court for the Northern District of California, Second Division, wherein Majestic Electric Development Company, is appellant, and you are appellee, to show cause, if any there be, why the decree rendered against the said appellant, as in the said order allowing appeal mentioned, should not be corrected, and why speedy justice should not be done to the parties in that behalf.

WITNESS, the Honorable ROBERT S. BEAN, United States District Judge for the District of Oregon, designated to hold and holding the District Court of the United States, for the Northern District of California, this 19th day of November, A. D. 1920.

R. S. BEAN,
United States District Judge. [106]

Received a copy of the within Citation on Appeal
this 23d day of November, 1920.

D. L. LEVY,
W. SHELTON,
Attorneys for Defendant.

[Endorsed]: No. 544. United States District Court for the Northern District of California. Majestic Electric Development Co., Appellant, vs. Westinghouse Electric & Mfg. Company. Citation on Appeal. Filed Nov. 23, 1920. W. B. Maling, Clerk. By J. A. Schaertzer, Deputy Clerk.

[Endorsed]: No. 3618. United States Circuit Court of Appeals for the Ninth Circuit. Majestic Electric Development Company, a Corporation, Appellant, vs. Westinghouse Electric & Manufacturing Company, a Corporation, Appellee. Transcript of Record. Upon Appeal from the Southern Division of the United States District Court for the Northern District of California, Second Division.

Filed December 29, 1920.

F. D. MONCKTON,
Clerk of the United States Circuit Court of Appeals
for the Ninth Circuit.

By Paul P. O'Brien,
Deputy Clerk.

United States Circuit Court of Appeals for the
Ninth Circuit.

MAJESTIC ELECTRIC DEVELOPMENT COM-
PANY,

Appellant,

vs.

WESTINGHOUSE ELECTRIC & MANUFAC-
TURING COMPANY,

Appellee.

**Order Extending Time to and Including January
20, 1921, to File Record on Appeal and Docket
the Cause.**

Good cause being shown, it is hereby ordered that the appellant in the above-entitled suit may have to and including the 20th day of January, 1921, within which to file the record on appeal and to docket the cause in the United States Circuit Court of Appeals for the Ninth Circuit.

Dated December 20, 1920.

W. H. HUNT,
Circuit Judge.

[Endorsed]: No. 3618. United States Circuit Court of Appeals for the Ninth Circuit. Order Under Subdivision 1 of Rule 16 Enlarging Time to and Including Jan. 20, 1921, to File Record and Docket Cause. Filed Dec. 20, 1920. F. D. Monckton, Clerk. Refiled Dec. 29, 1920. F. D. Monckton, Clerk.

